

ECDMS Complete Catalog - 2020128
08/26/09

Catalog Submitter

Catalog Title	Rio Grande Silvery Minnow Health Study		
Catalog Submitter	Lusk, Joel		
Submitter Title	Senior Environmental Contaminant Specialist		
Location	New Mexico Ecological Services Field Office, NM		
Submitters Email	joel_lusk@fws.gov		
Phone Number	(505) 761-4709 ext. 109	Fax Number	505-346-2542

Catalog Information

Number of Samples	45	Date Submitted	08/10/09
Disposition of Samples	Return	Catalog Validation	Validated
Chain of Custody	No	Fields Missing	0
Submitter has Split Samples	No	Non-Routine Request	No
Request Permanent Lock	No	Rapid Turnaround	No
Catalog Data Lock	Catalog and sample data are unlocked.		
Results Data Lock	There are no results for this catalog.		

Project Information

DEQ Project ID	N/A	Regional Study ID	N/A
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FWS Refuge Names

The results of this catalog are directly applicable to the following FWS refuges:
Bosque Del Apache National Wildlife Refuge , New Mexico
Sevilleta National Wildlife Refuge , New Mexico

Catalog Description

Catalog Instructions

The priority where samples have multiple chemical analyses requested is 209 PCB by HRGC/HRMS, lipids, organochlorine pesticides, heavy metals (and As, Hg, Se), PBDEs, dioxins, aromatics and then other analytes. Note that the fish was dissected and stored in a freezer for up to 2 years, and therefore, moisture content has likely largely been lost and is NOT a priority for analysis although this "analyte" has been requested.

Cost Code Information

Priority	Cost Code	Dollars Available

1	09-22420-1946-2013	\$40,600
Total		\$40,600

Regional Approval

Region	Current Regional Coordinator	Approval Date	Phone Number	E-Mail Address
2	Laila Lienesch	08/14/09	505-248-6494 ext.	laila_lienesch@fws.gov

Catalog Status Information

Purchase Order Number	Lab Name	Analysis Type	PO Generated	Lab Approval	Current *PCD	QA/QC Approval	Results Location
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Catalog Cost

Purchase Order Number	Lab Name	Analysis Type	Cost Code	Cost
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Sample Number - 7-06-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	79.6 grams	Collection Date	07/27/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG near Bernalillo, NM above and below 550 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32121025	35 N 19 ' 16 "	3909779 N
Longitude	-106.55842789	-106 E 33 ' 30 "	358343 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Analysis Requested Comments
For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-06-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	83.6 grams	Collection Date	07/26/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site2 - MRG at Alameda NM, below AMAFCA NDC		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20897414	35 N 12 ' 32 "	3897417 N
Longitude	-106.61797315	-106 E 37 ' 4 "	352727 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.9 grams	Collection Date	07/25/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site3-MRG at Los Padillas, NM above I-25 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.97261343	34 N 58 ' 21 "	3871311 N
Longitude	-106.69041188	-106 E 41 ' 25 "	345688 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all fish from the site were removed from foil and composited into a jar for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	59.0 grams	Collection Date	07/20/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 - MRG at Los Lunas - above Main Street Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81456722	34 N 48 ' 52 "	3853814 N
Longitude	-106.71109672	-106 E 42 ' 39 "	343500 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-06-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	64.5 grams	Collection Date	07/19/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM. above Sevilleta NWR portion of Rio		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's

Latitude	34.31230631	34 N 18 ' 44 "	3798341 N
Longitude	-106.854025	-106 E 51 ' 14 "	329403 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	40.3 grams	Collection Date	07/18/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 - MRG near San Antonio, NM north of Bosque del Apache NWR border		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87452474	33 N 52 ' 28 "	3749783 N
Longitude	-106.84959324	-106 E 50 ' 58 "	328932 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	63.0 grams	Collection Date	07/16/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG at Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32125645	35 N 19 ' 16 "	3909784 N
Longitude	-106.55834077	-106 E 33 ' 30 "	358351 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 7-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	53.6 grams	Collection Date	07/15/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM above Alameda Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20892995	35 N 12 ' 32 "	3897412 N
Longitude	-106.61790636	-106 E 37 ' 4 "	352733 E

Coordinate Method	UTM Coordinates
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Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 4-08-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	189.9 grams	Collection Date	04/13/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 - MRG at Los Padillas (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.01396395	35 N 0 ' 50 "	3875872 N
Longitude	-106.67395835	-106 E 40 ' 26 "	347267 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	28.3 grams	Collection Date	07/10/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4- MRG near Los Lunas (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81916416	34 N 49 ' 8 "	3854327 N
Longitude	-106.713116	-106 E 42 ' 47 "	343324 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 1-08-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	76.3 grams	Collection Date	01/23/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31200231	34 N 18 ' 43 "	3798307 N
Longitude	-106.85385532	-106 E 51 ' 13 "	329418 E

Coordinate Method	UTM Coordinates
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Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 10-07-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	25.7 grams	Collection Date	10/31/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.3125136	35 N 18 ' 45 "	3908815 N
Longitude	-106.55884398	-106 E 33 ' 31 "	358290 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	26.7 grams	Collection Date	10/30/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG at Alameda, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20886524	35 N 12 ' 31 "	3897405 N
Longitude	-106.61802592	-106 E 37 ' 4 "	352722 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	43.3 grams	Collection Date	10/29/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas, NM (above I-25 Bridge)		

FWS Refuge	N/A
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Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.9735791	34 N 58 ' 24 "	3871418 N
Longitude	-106.6903441	-106 E 41 ' 25 "	345696 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	39.8 grams	Collection Date	10/25/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM above main st bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81863921	34 N 49 ' 7 "	3854269 N
Longitude	-106.7132582	-106 E 42 ' 47 "	343310 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	46.9 grams	Collection Date	10/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31200231	34 N 18 ' 43 "	3798307 N
Longitude	-106.85385532	-106 E 51 ' 13 "	329418 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-07-6

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Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	29.0 grams	Collection Date	10/23/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio NM (above BdANWR border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87600472	33 N 52 ' 33 "	3749947 N
Longitude	-106.84951707	-106 E 50 ' 58 "	328942 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 1-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	31.9 grams	Collection Date	01/30/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.31245022	35 N 18 ' 44 "	3908808 N
Longitude	-106.55886476	-106 E 33 ' 31 "	358288 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
Aliphatic Scan
Aromatic Scan
Inorganic Analysis
Metals Scan

Sample Number - 1-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	52.6 grams	Collection Date	01/28/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM above Alameda Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's

Latitude	35.20892167	35 N 12 ' 32 "	3897411 N
Longitude	-106.61785127	-106 E 37 ' 4 "	352738 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 1-08-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	50.3 grams	Collection Date	01/28/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20786166	35 N 12 ' 28 "	3897411 N
Longitude	-106.69530751	-106 E 41 ' 43 "	345685 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 1-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	47.1 grams	Collection Date	01/24/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81820555	34 N 49 ' 5 "	3854220 N
Longitude	-106.71268071	-106 E 42 ' 45 "	343362 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
Aliphatic Scan
Aromatic Scan
Inorganic Analysis
Metals Scan

Sample Number - 1-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	55.9 grams	Collection Date	01/22/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (just above BdANWR north border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87474141	33 N 52 ' 29 "	3749807 N
Longitude	-106.84957629	-106 E 50 ' 58 "	328934 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 4-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	33.5 grams	Collection Date	04/14/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32108775	35 N 19 ' 15 "	3909765 N
Longitude	-106.55813952	-106 E 33 ' 29 "	358369 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenyl Ethers

Inorganic Analysis

Metals Scan

Sample Number - 10-06-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	77.8 grams	Collection Date	10/12/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM (above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21089567	35 N 12 ' 39 "	3897432 N
Longitude	-106.61757152	-106 E 37 ' 3 "	352764 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-06-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	79.0 grams	Collection Date	10/07/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas (above I-25 Bridge)		

FWS Refuge	N/A
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Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.95743122	34 N 57 ' 26 "	3869618 N
Longitude	-106.68450383	-106 E 41 ' 4 "	346199 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

Necropsy fish composite - Individual health observations available. Gonads were removed. Some fluids were likely lost also.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize all minnow in sample before analyses. Note that priority for analysis is 209 PCB congeners, then OC + PCB aroclors, then dioxin/furan scan.

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-06-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	122.0 grams	Collection Date	10/16/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81717205	34 N 49 ' 1 "	3854105 N
Longitude	-106.71244066	-106 E 42 ' 44 "	343382 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil

and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-06-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	110.2 grams	Collection Date	10/05/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31230631	34 N 18 ' 44 "	3798341 N
Longitude	-106.854025	-106 E 51 ' 14 "	329403 E
Coordinate Method	UTM Coordinates		

Specimen Information

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Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 4-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
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Sample Weight	47.2 grams	Collection Date	04/15/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.2107287	35 N 12 ' 38 "	3897615 N
Longitude	-106.62025999	-106 E 37 ' 12 "	352522 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for

results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 4-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	134.7 grams	Collection Date	04/08/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 - MRG at Los Lunas, NM (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81907187	34 N 49 ' 8 "	3854317 N
Longitude	-106.71326716	-106 E 42 ' 47 "	343310 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
<p>Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.</p>

Analysis Requested Comments
<p>Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).</p>

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenly Ethers
Inorganic Analysis
Metals Scan

Sample Number - 4-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.4 grams	Collection Date	04/09/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (above BdANWR border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87436858	33 N 52 ' 27 "	3749766 N
Longitude	-106.84978446	-106 E 50 ' 59 "	328914 E
Coordinate Method	UTM Coordinates		

Specimen Information

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Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PBDE - Polybrominated Diphenly Ethers
PCB Quantification of Individual Aroclors
Inorganic Analysis
Metals Scan

Sample Number - 7-08-3

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Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	16.1 grams	Collection Date	07/14/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3- MRG at Los Padillas, NM above I-25 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.96696085	34 N 58 ' 1 "	3870683 N
Longitude	-106.68972619	-106 E 41 ' 23 "	345740 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis	
N/A	
Inorganic Analysis	
Metals Scan	
Methyl Mercury	

Sample Number - 7-08-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	10.5 grams	Collection Date	07/09/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG at La Joya, NM above Sevilleta NWR		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.29909525	34 N 17 ' 56 "	3796864 N
Longitude	-106.84696582	-106 E 50 ' 49 "	330026 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 7-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	16.6 grams	Collection Date	07/08/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 - MRG near San Antonio, NM above Bosque del Apache NWR		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.88534008	33 N 53 ' 7 "	3750975 N

Longitude	-106.8451451	-106 E 50 ' 42 "	329365 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 10-06-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	38.5 grams	Collection Date	10/11/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21213359	35 N 12 ' 43 "	3897763 N
Longitude	-106.61498184	-106 E 36 ' 53 "	353005 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 4-07-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	49.2 grams	Collection Date	04/26/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG near Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.31455303	35 N 18 ' 52 "	3909042 N
Longitude	-106.5594001	-106 E 33 ' 33 "	358243 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		

Family	Cyprinidae
Genus / Kingdom	Hybognathus / Animalia
Species	Hybognathus amarus

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan

Sample Number - 4-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	46.7 grams	Collection Date	04/25/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG near Alameda, NM (in side channel above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21174211	35 N 12 ' 42 "	3897723 N
Longitude	-106.61729205	-106 E 37 ' 2 "	352794 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 4-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.9 grams	Collection Date	04/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas, NM (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.97036675	34 N 58 ' 13 "	3871061 N
Longitude	-106.68988377	-106 E 41 ' 23 "	345732 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 4-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	53.1 grams	Collection Date	04/19/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM (above Main Street Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81798048	34 N 49 ' 4 "	3854193 N
Longitude	-106.71137504	-106 E 42 ' 40 "	343481 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan

Sample Number - 4-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	29.9 grams	Collection Date	04/18/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM (above Sevilleta NWR)		
FWS Refuge	N/A		

Site Coordinates

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	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31455461	34 N 18 ' 52 "	3798592 N
Longitude	-106.85500898	-106 E 51 ' 18 "	329317 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 1-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	36.5 grams	Collection Date	01/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG near Alameda, NM (above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20905205	35 N 12 ' 32 "	3897433 N
Longitude	-106.62292904	-106 E 37 ' 22 "	352276 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	95.3 grams	Collection Date	01/23/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG near Los Padillas, NM (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21174211	35 N 12 ' 42 "	3897723 N
Longitude	-106.61729205	-106 E 37 ' 2 "	352794 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 2-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	117.5 grams	Collection Date	02/01/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG near Los Lunas, NM (above Main Street Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81427857	34 N 48 ' 51 "	3853783 N
Longitude	-106.7117467	-106 E 42 ' 42 "	343440 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	42.7 grams	Collection Date	01/31/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM (above Sevilleta NWR)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.30541029	34 N 18 ' 19 "	3797569 N
Longitude	-106.84973359	-106 E 50 ' 59 "	329784 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	118.0 grams	Collection Date	01/30/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (above Bosque del Apache NWR)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87900195	33 N 52 ' 44 "	3750278 N
Longitude	-106.84868442	-106 E 50 ' 55 "	329025 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		

Genus / Kingdom	Hybognathus / Animalia
Species	Hybognathus amarus

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 06385810

Sample Matrix	Water	NWHC Case Number	N/A
Sample Weight	N/A grams	Collection Date	06/25/09
Sample Volume	1000.0 ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Survey
Location	San Jose Drain		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.04416667	35 N 2 ' 39 "	3879184 N
Longitude	-106.64944444	-106 E 38 ' 58 "	349559 E
Coordinate Method	Latitude/Longitude Degrees		
Latitude/Longitude Method	GPS Unit - NAD 83 Reference System		

Specimen Information

Sex	N/A	Age	N/A
Egg Condition	N/A		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

Water sample collected with teflon nozzle integrated sampler using rod. Added to teflon churn, homogenized then split, unfiltered into container. Sample contains suspended sediment. Kept chilled and shipped chilled for chemical analysis.

Field Preparation Comments

Water sample collected with teflon nozzle integrated sampler using rod. Added to teflon churn, homogenized then split, unfiltered into 1 liter HDPE container. Sample contains suspended sediment. Kept chilled and shipped chilled for chemical analysis.

Analysis Requested Comments

Water sample contains suspended sediment, please homogenize before analysis.

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

Metals Scan

ECDMS Complete Catalog - 2020128

08/26/09

Catalog Submitter

Catalog Title	Rio Grande Silvery Minnow Health Study		
Catalog Submitter	Lusk, Joel		
Submitter Title	Senior Environmental Contaminant Specialist		
Location	New Mexico Ecological Services Field Office, NM		
Submitters Email	joel_lusk@fws.gov		
Phone Number	(505) 761-4709 ext. 109	Fax Number	505-346-2542

Catalog Information

Number of Samples	45	Date Submitted	08/10/09
Disposition of Samples	Return	Catalog Validation	Validated
Chain of Custody	No	Fields Missing	0
Submitter has Split Samples	No	Non-Routine Request	No
Request Permanent Lock	No	Rapid Turnaround	No
Catalog Data Lock	Catalog and sample data are unlocked.		
Results Data Lock	There are no results for this catalog.		

Project Information

DEQ Project ID	N/A	Regional Study ID	N/A
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FWS Refuge Names

The results of this catalog are directly applicable to the following FWS refuges:
Bosque Del Apache National Wildlife Refuge , New Mexico
Sevilleta National Wildlife Refuge , New Mexico

Catalog Description
Catalog Instructions
The priority where samples have multiple chemical analyses requested is 209 PCB by HRGC/HRMS, lipids, organochlorine pesticides, heavy metals (and As, Hg, Se), PBDEs, dioxins, aromatics and then other analytes. Note that the fish was dissected and stored in a freezer for up to 2 years, and therefore, moisture content has likely largely been lost and is NOT a priority for analysis although this "analyte" has been requested.

Cost Code Information

Priority	Cost Code	Dollars Available

1	09-22420-1946-2013	\$40,600
Total		\$40,600

Regional Approval

Region	Current Regional Coordinator	Approval Date	Phone Number	E-Mail Address
2	Laila Lienesch	08/14/09	505-248-6494 ext.	laila_lienesch@fws.gov

Catalog Status Information

Purchase Order Number	Lab Name	Analysis Type	PO Generated	Lab Approval	Current *PCD	QA/QC Approval	Results Location
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Catalog Cost

Purchase Order Number	Lab Name	Analysis Type	Cost Code	Cost
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Sample Number - 7-06-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	79.6 grams	Collection Date	07/27/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG near Bernalillo, NM above and below 550 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32121025	35 N 19 ' 16 "	3909779 N
Longitude	-106.55842789	-106 E 33 ' 30 "	358343 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Analysis Requested Comments
For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenly Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-06-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	83.6 grams	Collection Date	07/26/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site2 - MRG at Alameda NM, below AMAFCA NDC		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20897414	35 N 12 ' 32 "	3897417 N
Longitude	-106.61797315	-106 E 37 ' 4 "	352727 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.9 grams	Collection Date	07/25/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site3-MRG at Los Padillas, NM above I-25 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.97261343	34 N 58 ' 21 "	3871311 N
Longitude	-106.69041188	-106 E 41 ' 25 "	345688 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all fish from the site were removed from foil and composited into a jar for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	59.0 grams	Collection Date	07/20/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 - MRG at Los Lunas - above Main Street Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81456722	34 N 48 ' 52 "	3853814 N
Longitude	-106.71109672	-106 E 42 ' 39 "	343500 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-06-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	64.5 grams	Collection Date	07/19/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM. above Sevilleta NWR portion of Rio		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's

Latitude	34.31230631	34 N 18 ' 44 "	3798341 N
Longitude	-106.854025	-106 E 51 ' 14 "	329403 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	40.3 grams	Collection Date	07/18/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 - MRG near San Antonio, NM north of Bosque del Apache NWR border		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87452474	33 N 52 ' 28 "	3749783 N
Longitude	-106.84959324	-106 E 50 ' 58 "	328932 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	63.0 grams	Collection Date	07/16/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG at Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32125645	35 N 19 ' 16 "	3909784 N
Longitude	-106.55834077	-106 E 33 ' 30 "	358351 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 7-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	53.6 grams	Collection Date	07/15/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM above Alameda Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20892995	35 N 12 ' 32 "	3897412 N
Longitude	-106.61790636	-106 E 37 ' 4 "	352733 E

Coordinate Method	UTM Coordinates
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Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 4-08-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	189.9 grams	Collection Date	04/13/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 - MRG at Los Padillas (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.01396395	35 N 0 ' 50 "	3875872 N
Longitude	-106.67395835	-106 E 40 ' 26 "	347267 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	28.3 grams	Collection Date	07/10/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4- MRG near Los Lunas (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81916416	34 N 49 ' 8 "	3854327 N
Longitude	-106.713116	-106 E 42 ' 47 "	343324 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 1-08-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	76.3 grams	Collection Date	01/23/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31200231	34 N 18 ' 43 "	3798307 N
Longitude	-106.85385532	-106 E 51 ' 13 "	329418 E

Coordinate Method	UTM Coordinates
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Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 10-07-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	25.7 grams	Collection Date	10/31/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.3125136	35 N 18 ' 45 "	3908815 N
Longitude	-106.55884398	-106 E 33 ' 31 "	358290 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	26.7 grams	Collection Date	10/30/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG at Alameda, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20886524	35 N 12 ' 31 "	3897405 N
Longitude	-106.61802592	-106 E 37 ' 4 "	352722 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	43.3 grams	Collection Date	10/29/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas, NM (above I-25 Bridge)		

FWS Refuge	N/A
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Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.9735791	34 N 58 ' 24 "	3871418 N
Longitude	-106.6903441	-106 E 41 ' 25 "	345696 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	39.8 grams	Collection Date	10/25/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM above main st bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81863921	34 N 49 ' 7 "	3854269 N
Longitude	-106.7132582	-106 E 42 ' 47 "	343310 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	46.9 grams	Collection Date	10/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31200231	34 N 18 ' 43 "	3798307 N
Longitude	-106.85385532	-106 E 51 ' 13 "	329418 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-07-6

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Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	29.0 grams	Collection Date	10/23/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio NM (above BdANWR border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87600472	33 N 52 ' 33 "	3749947 N
Longitude	-106.84951707	-106 E 50 ' 58 "	328942 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 1-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	31.9 grams	Collection Date	01/30/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.31245022	35 N 18 ' 44 "	3908808 N
Longitude	-106.55886476	-106 E 33 ' 31 "	358288 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
Aliphatic Scan
Aromatic Scan
Inorganic Analysis
Metals Scan

Sample Number - 1-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	52.6 grams	Collection Date	01/28/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM above Alameda Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's

Latitude	35.20892167	35 N 12 ' 32 "	3897411 N
Longitude	-106.61785127	-106 E 37 ' 4 "	352738 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 1-08-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	50.3 grams	Collection Date	01/28/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20786166	35 N 12 ' 28 "	3897411 N
Longitude	-106.69530751	-106 E 41 ' 43 "	345685 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 1-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	47.1 grams	Collection Date	01/24/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81820555	34 N 49 ' 5 "	3854220 N
Longitude	-106.71268071	-106 E 42 ' 45 "	343362 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
Aliphatic Scan
Aromatic Scan
Inorganic Analysis
Metals Scan

Sample Number - 1-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	55.9 grams	Collection Date	01/22/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (just above BdANWR north border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87474141	33 N 52 ' 29 "	3749807 N
Longitude	-106.84957629	-106 E 50 ' 58 "	328934 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 4-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	33.5 grams	Collection Date	04/14/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32108775	35 N 19 ' 15 "	3909765 N
Longitude	-106.55813952	-106 E 33 ' 29 "	358369 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenyl Ethers

Inorganic Analysis

Metals Scan

Sample Number - 10-06-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	77.8 grams	Collection Date	10/12/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM (above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21089567	35 N 12 ' 39 "	3897432 N
Longitude	-106.61757152	-106 E 37 ' 3 "	352764 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-06-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	79.0 grams	Collection Date	10/07/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas (above I-25 Bridge)		

FWS Refuge	N/A
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Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.95743122	34 N 57 ' 26 "	3869618 N
Longitude	-106.68450383	-106 E 41 ' 4 "	346199 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

Necropsy fish composite - Individual health observations available. Gonads were removed. Some fluids were likely lost also.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize all minnow in sample before analyses. Note that priority for analysis is 209 PCB congeners, then OC + PCB aroclors, then dioxin/furan scan.

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-06-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	122.0 grams	Collection Date	10/16/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81717205	34 N 49 ' 1 "	3854105 N
Longitude	-106.71244066	-106 E 42 ' 44 "	343382 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil

and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-06-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	110.2 grams	Collection Date	10/05/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31230631	34 N 18 ' 44 "	3798341 N
Longitude	-106.854025	-106 E 51 ' 14 "	329403 E
Coordinate Method	UTM Coordinates		

Specimen Information

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Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 4-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
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Sample Weight	47.2 grams	Collection Date	04/15/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.2107287	35 N 12 ' 38 "	3897615 N
Longitude	-106.62025999	-106 E 37 ' 12 "	352522 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for

results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 4-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	134.7 grams	Collection Date	04/08/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 - MRG at Los Lunas, NM (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81907187	34 N 49 ' 8 "	3854317 N
Longitude	-106.71326716	-106 E 42 ' 47 "	343310 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
<p>Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.</p>

Analysis Requested Comments
<p>Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).</p>

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenly Ethers
Inorganic Analysis
Metals Scan

Sample Number - 4-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.4 grams	Collection Date	04/09/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (above BdANWR border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87436858	33 N 52 ' 27 "	3749766 N
Longitude	-106.84978446	-106 E 50 ' 59 "	328914 E
Coordinate Method	UTM Coordinates		

Specimen Information

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Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
<p>Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.</p>

Analysis Requested Comments
<p>Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).</p>

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PBDE - Polybrominated Diphenly Ethers
PCB Quantification of Individual Aroclors
Inorganic Analysis
Metals Scan

Sample Number - 7-08-3

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Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	16.1 grams	Collection Date	07/14/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3- MRG at Los Padillas, NM above I-25 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.96696085	34 N 58 ' 1 "	3870683 N
Longitude	-106.68972619	-106 E 41 ' 23 "	345740 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 7-08-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	10.5 grams	Collection Date	07/09/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG at La Joya, NM above Sevilleta NWR		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.29909525	34 N 17 ' 56 "	3796864 N
Longitude	-106.84696582	-106 E 50 ' 49 "	330026 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

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(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 7-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	16.6 grams	Collection Date	07/08/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 - MRG near San Antonio, NM above Bosque del Apache NWR		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.88534008	33 N 53 ' 7 "	3750975 N

Longitude	-106.8451451	-106 E 50 ' 42 "	329365 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 10-06-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	38.5 grams	Collection Date	10/11/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21213359	35 N 12 ' 43 "	3897763 N
Longitude	-106.61498184	-106 E 36 ' 53 "	353005 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 4-07-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	49.2 grams	Collection Date	04/26/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG near Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.31455303	35 N 18 ' 52 "	3909042 N
Longitude	-106.5594001	-106 E 33 ' 33 "	358243 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		

Family	Cyprinidae
Genus / Kingdom	Hybognathus / Animalia
Species	Hybognathus amarus

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan

Sample Number - 4-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	46.7 grams	Collection Date	04/25/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG near Alameda, NM (in side channel above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21174211	35 N 12 ' 42 "	3897723 N
Longitude	-106.61729205	-106 E 37 ' 2 "	352794 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 4-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.9 grams	Collection Date	04/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas, NM (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.97036675	34 N 58 ' 13 "	3871061 N
Longitude	-106.68988377	-106 E 41 ' 23 "	345732 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 4-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	53.1 grams	Collection Date	04/19/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM (above Main Street Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81798048	34 N 49 ' 4 "	3854193 N
Longitude	-106.71137504	-106 E 42 ' 40 "	343481 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan

Sample Number - 4-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	29.9 grams	Collection Date	04/18/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM (above Sevilleta NWR)		
FWS Refuge	N/A		

Site Coordinates

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	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31455461	34 N 18 ' 52 "	3798592 N
Longitude	-106.85500898	-106 E 51 ' 18 "	329317 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 1-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	36.5 grams	Collection Date	01/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG near Alameda, NM (above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20905205	35 N 12 ' 32 "	3897433 N
Longitude	-106.62292904	-106 E 37 ' 22 "	352276 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	95.3 grams	Collection Date	01/23/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG near Los Padillas, NM (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21174211	35 N 12 ' 42 "	3897723 N
Longitude	-106.61729205	-106 E 37 ' 2 "	352794 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 2-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	117.5 grams	Collection Date	02/01/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG near Los Lunas, NM (above Main Street Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81427857	34 N 48 ' 51 "	3853783 N
Longitude	-106.7117467	-106 E 42 ' 42 "	343440 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	42.7 grams	Collection Date	01/31/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM (above Sevilleta NWR)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.30541029	34 N 18 ' 19 "	3797569 N
Longitude	-106.84973359	-106 E 50 ' 59 "	329784 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	118.0 grams	Collection Date	01/30/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (above Bosque del Apache NWR)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87900195	33 N 52 ' 44 "	3750278 N
Longitude	-106.84868442	-106 E 50 ' 55 "	329025 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		

Genus / Kingdom	Hybognathus / Animalia
Species	Hybognathus amarus

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 06385810

Sample Matrix	Water	NWHC Case Number	N/A
Sample Weight	N/A grams	Collection Date	06/25/09
Sample Volume	1000.0 ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Survey
Location	San Jose Drain		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.04416667	35 N 2 ' 39 "	3879184 N
Longitude	-106.64944444	-106 E 38 ' 58 "	349559 E
Coordinate Method	Latitude/Longitude Degrees		
Latitude/Longitude Method	GPS Unit - NAD 83 Reference System		

Specimen Information

Sex	N/A	Age	N/A
Egg Condition	N/A		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

Water sample collected with teflon nozzle integrated sampler using rod. Added to teflon churn, homogenized then split, unfiltered into container. Sample contains suspended sediment. Kept chilled and shipped chilled for chemical analysis.

Field Preparation Comments

Water sample collected with teflon nozzle integrated sampler using rod. Added to teflon churn, homogenized then split, unfiltered into 1 liter HDPE container. Sample contains suspended sediment. Kept chilled and shipped chilled for chemical analysis.

Analysis Requested Comments

Water sample contains suspended sediment, please homogenize before analysis.

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

Metals Scan

ECDMS Complete Catalog - 2020128
08/26/09

Catalog Submitter

Catalog Title	Rio Grande Silvery Minnow Health Study		
Catalog Submitter	Lusk, Joel		
Submitter Title	Senior Environmental Contaminant Specialist		
Location	New Mexico Ecological Services Field Office, NM		
Submitters Email	joel_lusk@fws.gov		
Phone Number	(505) 761-4709 ext. 109	Fax Number	505-346-2542

Catalog Information

Number of Samples	45	Date Submitted	08/10/09
Disposition of Samples	Return	Catalog Validation	Validated
Chain of Custody	No	Fields Missing	0
Submitter has Split Samples	No	Non-Routine Request	No
Request Permanent Lock	No	Rapid Turnaround	No
Catalog Data Lock	Catalog and sample data are unlocked.		
Results Data Lock	There are no results for this catalog.		

Project Information

DEQ Project ID	N/A	Regional Study ID	N/A
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FWS Refuge Names

The results of this catalog are directly applicable to the following FWS refuges:
Bosque Del Apache National Wildlife Refuge , New Mexico
Sevilleta National Wildlife Refuge , New Mexico

Catalog Description

Catalog Instructions

The priority where samples have multiple chemical analyses requested is 209 PCB by HRGC/HRMS, lipids, organochlorine pesticides, heavy metals (and As, Hg, Se), PBDEs, dioxins, aromatics and then other analytes. Note that the fish was dissected and stored in a freezer for up to 2 years, and therefore, moisture content has likely largely been lost and is NOT a priority for analysis although this "analyte" has been requested.

Cost Code Information

Priority	Cost Code	Dollars Available

1	09-22420-1946-2013	\$40,600
Total		\$40,600

Regional Approval

Region	Current Regional Coordinator	Approval Date	Phone Number	E-Mail Address
2	Laila Lienesch	08/14/09	505-248-6494 ext.	laila_lienesch@fws.gov

Catalog Status Information

Purchase Order Number	Lab Name	Analysis Type	PO Generated	Lab Approval	Current *PCD	QA/QC Approval	Results Location
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Catalog Cost

Purchase Order Number	Lab Name	Analysis Type	Cost Code	Cost
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Sample Number - 7-06-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	79.6 grams	Collection Date	07/27/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG near Bernalillo, NM above and below 550 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32121025	35 N 19 ' 16 "	3909779 N
Longitude	-106.55842789	-106 E 33 ' 30 "	358343 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.
Analysis Requested Comments
For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenly Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-06-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	83.6 grams	Collection Date	07/26/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site2 - MRG at Alameda NM, below AMAFCA NDC		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20897414	35 N 12 ' 32 "	3897417 N
Longitude	-106.61797315	-106 E 37 ' 4 "	352727 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.9 grams	Collection Date	07/25/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site3-MRG at Los Padillas, NM above I-25 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.97261343	34 N 58 ' 21 "	3871311 N
Longitude	-106.69041188	-106 E 41 ' 25 "	345688 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all fish from the site were removed from foil and composited into a jar for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenly Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	59.0 grams	Collection Date	07/20/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 - MRG at Los Lunas - above Main Street Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81456722	34 N 48 ' 52 "	3853814 N
Longitude	-106.71109672	-106 E 42 ' 39 "	343500 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-06-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	64.5 grams	Collection Date	07/19/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM. above Sevilleta NWR portion of Rio		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's

Latitude	34.31230631	34 N 18 ' 44 "	3798341 N
Longitude	-106.854025	-106 E 51 ' 14 "	329403 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenyl Ethers

Inorganic Analysis

Metals Scan

Sample Number - 7-06-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	40.3 grams	Collection Date	07/18/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 - MRG near San Antonio, NM north of Bosque del Apache NWR border		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87452474	33 N 52 ' 28 "	3749783 N
Longitude	-106.84959324	-106 E 50 ' 58 "	328932 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	63.0 grams	Collection Date	07/16/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG at Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32125645	35 N 19 ' 16 "	3909784 N
Longitude	-106.55834077	-106 E 33 ' 30 "	358351 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 7-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	53.6 grams	Collection Date	07/15/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM above Alameda Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20892995	35 N 12 ' 32 "	3897412 N
Longitude	-106.61790636	-106 E 37 ' 4 "	352733 E

Coordinate Method	UTM Coordinates
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Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 4-08-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	189.9 grams	Collection Date	04/13/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 - MRG at Los Padillas (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.01396395	35 N 0 ' 50 "	3875872 N
Longitude	-106.67395835	-106 E 40 ' 26 "	347267 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 7-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	28.3 grams	Collection Date	07/10/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4- MRG near Los Lunas (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81916416	34 N 49 ' 8 "	3854327 N
Longitude	-106.713116	-106 E 42 ' 47 "	343324 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 1-08-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	76.3 grams	Collection Date	01/23/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31200231	34 N 18 ' 43 "	3798307 N
Longitude	-106.85385532	-106 E 51 ' 13 "	329418 E

Coordinate Method	UTM Coordinates
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Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 10-07-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	25.7 grams	Collection Date	10/31/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 - MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.3125136	35 N 18 ' 45 "	3908815 N
Longitude	-106.55884398	-106 E 33 ' 31 "	358290 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	26.7 grams	Collection Date	10/30/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG at Alameda, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20886524	35 N 12 ' 31 "	3897405 N
Longitude	-106.61802592	-106 E 37 ' 4 "	352722 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	43.3 grams	Collection Date	10/29/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas, NM (above I-25 Bridge)		

FWS Refuge	N/A
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Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.9735791	34 N 58 ' 24 "	3871418 N
Longitude	-106.6903441	-106 E 41 ' 25 "	345696 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	39.8 grams	Collection Date	10/25/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM above main st bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81863921	34 N 49 ' 7 "	3854269 N
Longitude	-106.7132582	-106 E 42 ' 47 "	343310 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	46.9 grams	Collection Date	10/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31200231	34 N 18 ' 43 "	3798307 N
Longitude	-106.85385532	-106 E 51 ' 13 "	329418 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-07-6

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Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	29.0 grams	Collection Date	10/23/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio NM (above BdANWR border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87600472	33 N 52 ' 33 "	3749947 N
Longitude	-106.84951707	-106 E 50 ' 58 "	328942 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 1-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	31.9 grams	Collection Date	01/30/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.31245022	35 N 18 ' 44 "	3908808 N
Longitude	-106.55886476	-106 E 33 ' 31 "	358288 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.
Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
Aliphatic Scan
Aromatic Scan
Inorganic Analysis
Metals Scan

Sample Number - 1-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	52.6 grams	Collection Date	01/28/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM above Alameda Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's

Latitude	35.20892167	35 N 12 ' 32 "	3897411 N
Longitude	-106.61785127	-106 E 37 ' 4 "	352738 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 1-08-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	50.3 grams	Collection Date	01/28/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20786166	35 N 12 ' 28 "	3897411 N
Longitude	-106.69530751	-106 E 41 ' 43 "	345685 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 1-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	47.1 grams	Collection Date	01/24/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81820555	34 N 49 ' 5 "	3854220 N
Longitude	-106.71268071	-106 E 42 ' 45 "	343362 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
Aliphatic Scan
Aromatic Scan
Inorganic Analysis
Metals Scan

Sample Number - 1-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	55.9 grams	Collection Date	01/22/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (just above BdANWR north border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87474141	33 N 52 ' 29 "	3749807 N
Longitude	-106.84957629	-106 E 50 ' 58 "	328934 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

Aliphatic Scan

Aromatic Scan

Inorganic Analysis

Metals Scan

Sample Number - 4-08-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	33.5 grams	Collection Date	04/14/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.32108775	35 N 19 ' 15 "	3909765 N
Longitude	-106.55813952	-106 E 33 ' 29 "	358369 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

PBDE - Polybrominated Diphenyl Ethers

Inorganic Analysis

Metals Scan

Sample Number - 10-06-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	77.8 grams	Collection Date	10/12/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda, NM (above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21089567	35 N 12 ' 39 "	3897432 N
Longitude	-106.61757152	-106 E 37 ' 3 "	352764 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Dioxin & Furan Full Scan
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-06-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	79.0 grams	Collection Date	10/07/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas (above I-25 Bridge)		

FWS Refuge	N/A
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Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.95743122	34 N 57 ' 26 "	3869618 N
Longitude	-106.68450383	-106 E 41 ' 4 "	346199 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

Necropsy fish composite - Individual health observations available. Gonads were removed. Some fluids were likely lost also.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize all minnow in sample before analyses. Note that priority for analysis is 209 PCB congeners, then OC + PCB aroclors, then dioxin/furan scan.

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 10-06-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	122.0 grams	Collection Date	10/16/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81717205	34 N 49 ' 1 "	3854105 N
Longitude	-106.71244066	-106 E 42 ' 44 "	343382 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil

and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 10-06-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	110.2 grams	Collection Date	10/05/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG near La Joya, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31230631	34 N 18 ' 44 "	3798341 N
Longitude	-106.854025	-106 E 51 ' 14 "	329403 E
Coordinate Method	UTM Coordinates		

Specimen Information

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Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PCB Quantification of Individual Aroclors
Inorganic Analysis
N/A

Sample Number - 4-08-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
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Sample Weight	47.2 grams	Collection Date	04/15/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 - MRG at Alameda		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.2107287	35 N 12 ' 38 "	3897615 N
Longitude	-106.62025999	-106 E 37 ' 12 "	352522 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for

results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenyl Ethers
Inorganic Analysis
Metals Scan

Sample Number - 4-08-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	134.7 grams	Collection Date	04/08/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 - MRG at Los Lunas, NM (above Main St Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81907187	34 N 49 ' 8 "	3854317 N
Longitude	-106.71326716	-106 E 42 ' 47 "	343310 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
<p>Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.</p>

Analysis Requested Comments
<p>Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).</p>

Analysis Requested

Organic Analysis
PBDE - Polybrominated Diphenly Ethers
Inorganic Analysis
Metals Scan

Sample Number - 4-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.4 grams	Collection Date	04/09/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (above BdANWR border)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87436858	33 N 52 ' 27 "	3749766 N
Longitude	-106.84978446	-106 E 50 ' 59 "	328914 E
Coordinate Method	UTM Coordinates		

Specimen Information

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Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
<p>These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.</p>

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
209 PCB by HRGC/HRMS (EPA 1668a)
Organochlorine Scan (OC)
PBDE - Polybrominated Diphenly Ethers
PCB Quantification of Individual Aroclors
Inorganic Analysis
Metals Scan

Sample Number - 7-08-3

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Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	16.1 grams	Collection Date	07/14/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3- MRG at Los Padillas, NM above I-25 Bridge		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.96696085	34 N 58 ' 1 "	3870683 N
Longitude	-106.68972619	-106 E 41 ' 23 "	345740 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 7-08-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	10.5 grams	Collection Date	07/09/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 - MRG at La Joya, NM above Sevilleta NWR		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.29909525	34 N 17 ' 56 "	3796864 N
Longitude	-106.84696582	-106 E 50 ' 49 "	330026 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

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(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 7-08-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	16.6 grams	Collection Date	07/08/08
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 - MRG near San Antonio, NM above Bosque del Apache NWR		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.88534008	33 N 53 ' 7 "	3750975 N

Longitude	-106.8451451	-106 E 50 ' 42 "	329365 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 10-06-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	38.5 grams	Collection Date	10/11/06
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 1 MRG at Bernalillo, NM		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21213359	35 N 12 ' 43 "	3897763 N
Longitude	-106.61498184	-106 E 36 ' 53 "	353005 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Dioxin & Furan Full Scan

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

N/A

Sample Number - 4-07-1

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	49.2 grams	Collection Date	04/26/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Sandoval	Site Classification	Monitoring
Location	Site 1 MRG near Bernalillo, NM (above and below 550 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.31455303	35 N 18 ' 52 "	3909042 N
Longitude	-106.5594001	-106 E 33 ' 33 "	358243 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		

Family	Cyprinidae
Genus / Kingdom	Hybognathus / Animalia
Species	Hybognathus amarus

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan

Sample Number - 4-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	46.7 grams	Collection Date	04/25/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG near Alameda, NM (in side channel above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21174211	35 N 12 ' 42 "	3897723 N
Longitude	-106.61729205	-106 E 37 ' 2 "	352794 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 4-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	32.9 grams	Collection Date	04/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG at Los Padillas, NM (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.97036675	34 N 58 ' 13 "	3871061 N
Longitude	-106.68988377	-106 E 41 ' 23 "	345732 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 4-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	53.1 grams	Collection Date	04/19/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG at Los Lunas, NM (above Main Street Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81798048	34 N 49 ' 4 "	3854193 N
Longitude	-106.71137504	-106 E 42 ' 40 "	343481 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan

Sample Number - 4-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	29.9 grams	Collection Date	04/18/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM (above Sevilleta NWR)		
FWS Refuge	N/A		

Site Coordinates

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	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.31455461	34 N 18 ' 52 "	3798592 N
Longitude	-106.85500898	-106 E 51 ' 18 "	329317 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Sample Number - 1-07-2

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	36.5 grams	Collection Date	01/24/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 2 MRG near Alameda, NM (above Alameda Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.20905205	35 N 12 ' 32 "	3897433 N
Longitude	-106.62292904	-106 E 37 ' 22 "	352276 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in

foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-3

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	95.3 grams	Collection Date	01/23/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Monitoring
Location	Site 3 MRG near Los Padillas, NM (above I-25 Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.21174211	35 N 12 ' 42 "	3897723 N
Longitude	-106.61729205	-106 E 37 ' 2 "	352794 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		

Species	Hybognathus amarus
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Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 2-07-4

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	117.5 grams	Collection Date	02/01/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Valencia	Site Classification	Monitoring
Location	Site 4 MRG near Los Lunas, NM (above Main Street Bridge)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.81427857	34 N 48 ' 51 "	3853783 N
Longitude	-106.7117467	-106 E 42 ' 42 "	343440 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-5

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	42.7 grams	Collection Date	01/31/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 5 MRG near La Joya, NM (above Sevilleta NWR)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	34.30541029	34 N 18 ' 19 "	3797569 N
Longitude	-106.84973359	-106 E 50 ' 59 "	329784 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		
Genus / Kingdom	Hybognathus / Animalia		
Species	Hybognathus amarus		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments

Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments

Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis

N/A

Inorganic Analysis

Metals Scan

Methyl Mercury

Sample Number - 1-07-6

Sample Matrix	Partial Carcass	NWHC Case Number	N/A
Sample Weight	118.0 grams	Collection Date	01/30/07
Sample Volume	N/A ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Socorro	Site Classification	Monitoring
Location	Site 6 MRG near San Antonio, NM (above Bosque del Apache NWR)		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	33.87900195	33 N 52 ' 44 "	3750278 N
Longitude	-106.84868442	-106 E 50 ' 55 "	329025 E
Coordinate Method	UTM Coordinates		

Specimen Information

Sex	Mixed (composite)	Age	Adult
Egg Condition	N/A		
Taxonomical Group	Fish		
Common Name	Rio Grande Silvery Minnow		
Family	Cyprinidae		

Genus / Kingdom	Hybognathus / Animalia
Species	Hybognathus amarus

Specimen Abnormalities <i>(These observations were not necessarily determined by a pathologist)</i>
N/A

Sample Comments
These Rio Grande silvery minnow were seined from the Rio Grande at various sites and dates. They were held in a live well until necropsy. After being subdued by a blow to the head, individual health observations were made and recorded elsewhere. The gonads were removed for histopathology. During the necropsy, these organs as well as various fluids were lost from the sample. The remaining innards were tucked back in and each individual fish was wrapped in aluminum foil and stored in freezer for up to 2 years. Up to 30 fish (or more) were then composited into a labeled jar and shipped frozen for chemical analyses.

Field Preparation Comments
Seine collection, kept alive, subdued by blow to head, dissected for observations, gonads removed, individual frozen in foil, then all from site removed and composited for chemical analyses.

Analysis Requested Comments
Please homogenize and composite all minnow in a sample. For those samples with multiple analyses, the priority for results is the 209 PCB by HRGC/HRMS, then the Organochlorine scan (with determination of percent lipids is Priority 2), then determination of PBDE and/or dioxin/furan, then the Metal Scan and/or methyl mercury is Priority 4 (moisture content is also requested but is not a priority).

Analysis Requested

Organic Analysis
N/A
Inorganic Analysis
Metals Scan
Methyl Mercury

Sample Number - 06385810

Sample Matrix	Water	NWHC Case Number	N/A
Sample Weight	N/A grams	Collection Date	06/25/09
Sample Volume	1000.0 ml.	Composite Sample	Yes
State	New Mexico	USGS Watershed	13020203
County	Bernalillo	Site Classification	Survey
Location	San Jose Drain		
FWS Refuge	N/A		

Site Coordinates

	Decimal Degrees	Deg./Min./Sec.	UTM's
Latitude	35.04416667	35 N 2 ' 39 "	3879184 N
Longitude	-106.64944444	-106 E 38 ' 58 "	349559 E
Coordinate Method	Latitude/Longitude Degrees		
Latitude/Longitude Method	GPS Unit - NAD 83 Reference System		

Specimen Information

Sex	N/A	Age	N/A
Egg Condition	N/A		

Specimen Abnormalities

(These observations were not necessarily determined by a pathologist)

N/A

Sample Comments

Water sample collected with teflon nozzle integrated sampler using rod. Added to teflon churn, homogenized then split, unfiltered into container. Sample contains suspended sediment. Kept chilled and shipped chilled for chemical analysis.

Field Preparation Comments

Water sample collected with teflon nozzle integrated sampler using rod. Added to teflon churn, homogenized then split, unfiltered into 1 liter HDPE container. Sample contains suspended sediment. Kept chilled and shipped chilled for chemical analysis.

Analysis Requested Comments

Water sample contains suspended sediment, please homogenize before analysis.

Analysis Requested

Organic Analysis

209 PCB by HRGC/HRMS (EPA 1668a)

Organochlorine Scan (OC)

PCB Quantification of Individual Aroclors

Inorganic Analysis

Metals Scan