

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Scientific Permit Requirements for Conducting Presence/Absence Surveys and Habitat Assessments for the Golden-cheeked Warbler

USFWS Austin ESFO
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Introduction

This document identifies the minimum requirements for conducting presence/absence surveys for Golden-cheeked Warblers (*Setophaga chrysoparia*, GCWA), as authorized by the U.S. Fish and Wildlife Service (Service) under section 10(a)(1)(A) scientific research and recovery permits. Please note this document supersedes previous guidance from the Service on conducting surveys for this species.

Section 10(a)(1)(A) permits issued by the Service, also known as recovery, scientific, or enhancement of survival permits, allow for “take” of listed species that may or will occur while conducting research or other activities to enhance the survival of the species. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering.

We encourage permittees to use the current species range information available through the Service’s Environmental Conservation Online System (<https://ecos.fws.gov>) as well as recommendations from the appropriate Austin Ecological Services Field Office (Austin ESFO) species lead(s) or consultations biologists to help determine when and where surveys are necessary or recommended.

Presence/Absence Surveys

Methods

The following procedures must be used when conducting GCWA presence/absence surveys.

- Surveys must be conducted between March 15 and June 1.
- At least 60 percent of the surveys must be conducted prior to May 15.
- Survey times must start no earlier than 30 minutes before sunrise.
- Surveys must be completed within 7 hours of sunrise.
- Surveys should consist of a minimum of 5 visits with no more than 1 visit within any 5-day period.
- Total survey time should be a minimum of 1 hour per 25 acres of potential habitat per visit (potential habitat described below).
- A minimum of 1 hour per visit is needed regardless of the size of the site.

- Recordings of GCWA or screech owl calls must be used to verify absence of GCWA. These recordings may be used **only after the above methodology has been conducted over 5 visits** with no positive GCWA detections.
- Recordings must only be played for 30 to 60 seconds at a time, followed by a quiet period of at least 15 seconds before repeating the process once more. After the second quiet period with no detection, surveyors may move to another area. Upon GCWA detection, the recording must be stopped in the area immediately.
- **In most cases, we require at least 3 years of negative survey results following these methods to infer absence of GCWA from a property.**
- Exceptions to these methods may be allowed only through coordination with and prior written approval by the Austin ESFO.

Survey Conditions

- Surveys must **not** be conducted during unfavorable weather conditions, such as (1) wind speeds greater than 12 miles per hour, (2) fog, (3) light to heavy precipitation, and (4) temperatures less than 45°F or greater than 80°F.
- Surveyors must not conduct surveys when experiencing temporary hearing impairment, such as from illness.

Habitat

Potential GCWA Habitat

The following information is provided in Campbell 2003, which is used by Austin ESFO consultations biologists to help identify potential GCWA habitat.

GCWAs are expected to occur in woodlands with mature Ashe juniper (*Juniperus ashei*) in a natural mix with oaks, elms, and other hardwoods in relatively moist (mesic) areas, such as steep canyons and slopes. Adjacent uplands are also considered highly likely to be used by GCWA. Mature Ashe junipers are at least 15 feet in height with a trunk diameter of about 5 inches at 4 feet above the ground (diameter at breast height, [dbh]). These areas generally will have a nearly contiguous canopy cover of trees with 50 to 100 percent canopy closure and an overall canopy height of 20 feet or more.

Other vegetation associations that may be used by GCWAs include the following (particularly when located adjacent to or near woodlands with characteristics described above):

- Stands of mature Ashe juniper (trees with shredding bark) over 15 feet in height and a 5 inched dbh with scattered live oaks (at least 10 percent total canopy cover), where the total canopy cover of trees exceeds 35 percent and overall woodland canopy height is at least 20 feet.
- Bottomlands along creeks and drainages that support at least a 35 percent canopy of deciduous trees (average canopy height of 20 feet), with mature Ashe juniper (at least 15 feet and 5 inches dbh) growing either in the bottom or nearby slopes.
- Mixed stands of post oak and/or blackjack oak (10 to 30 percent canopy cover), with scattered mature Ashe juniper (15 feet and 5 inches dbh), where the total canopy cover of trees exceeds 35 percent and overall woodland canopy height is 20 feet.

- Mixed stands of shin (scaly bark) oak (10 to 30 percent canopy cover) with scattered mature Ashe juniper (15 feet and 5 inches dbh), where the total canopy cover of trees exceeds 35 percent and overall woodland canopy height is 20 feet.

Non-GCWA Habitat

Vegetation associations where GCWAs are **not expected to be found** and are unlikely to be used by GCWA except for foraging when located adjacent to occupied habitat include the following:

- Stands of small Ashe juniper averaging less than 15 feet in height and 5 inches dbh. This includes small juniper that invades open rangelands, previously cleared areas, or old fields. These areas are often dry and relatively flat and lack oaks and other broad-leaved trees and shrubs.
- Pure stands of Ashe juniper (greater than 15 feet in height and 5 inches dbh) with few or no oaks or other hardwoods.
- Open, park-like woodlands or savannahs (even with mature Ashe juniper) where canopy cover of trees is less than 35 percent.
- Small Ashe junipers and other trees along existing fence lines
- Small junipers (less than 15 feet tall) under larger hardwoods where Ashe junipers have been removed in the past 20 years.

Reporting

Annual Reporting

Scientific permit holders must provide their GCWA presence/absence survey data **no later than June 30th** of each year to the Austin ESFO. All GCWA survey reports should be submitted electronically to GCWAreporting@fws.gov and should be titled “GCWA Survey Report” in the subject line. Annual reports must consist of the following information:

- GCWA observation data from the collecting during the GCWA survey season. This data may be submitted as either a GIS feature class/shapefile (preferred) or in an Excel spreadsheet following the most recent “GCWA Observation Data Reporting Instructions” as provided by the Austin ESFO. GCWA observation data is due no later than June 30th of each survey year.
- GCWA survey area data delineated from areas surveyed during the GCWA survey season. This data may be submitted either in a GIS polygon shapefile (preferred) or an Excel spreadsheet. If submitting as an Excel spreadsheet, permit holders must also submit a map clearly illustrating the exact location of the surveyed area(s) with clearly delineated boundaries of each area surveyed within the context of the surrounding landscape on a USGS topo, aerial photo, or street map, so we can relocate the area(s) and digitize them accurately. Survey area data must be submitted in accordance with the most recent “GCWA Survey Area Data Reporting Instructions” as provided by the Austin ESFO. GCWA survey area data are due no later than June 30th of each survey year.
- The GCWA annual scientific permit report consisting of a narrative description of permit activities conducted during the year must include detailed descriptions of habitats found on all surveyed tracts. Other types of information that should be included are: (1) a

narrative description of survey methods (particularly if methods for surveys other than the Service's GCWA presence absence survey requirements were employed); (2) a narrative description of results (e.g., estimated GCWA abundance, territories located, territory density of a tract based in survey results if applicable); (3) results of banding and banding re-sighting activities if applicable; (4) number of nests found and information on nesting success if applicable; (5) information on depredation if applicable; and (6) information on injuries or stress of individuals as a result of permitted activities, such as mist-netting and banding if applicable. It is not necessary to repeat information that was previously submitted in the observation or survey area data. Results may be presented in a data table. This narrative report of covered activities is due no later than December 15th of each year.

Habitat Assessments

If any property or any area of a property that meets the GCWA potential habitat descriptions above is not surveyed in accordance with the survey requirements specified in this document, then a report on that area or property must be submitted to the Austin ESFO for review. For example, if the vegetation associations on a property met the definitions above but were considered not suitable GCWA habitat, please provide your habitat assessment to the Austin ESFO for review as soon as possible (we recommend within 5 business days) or as far in advance of planned vegetation clearing as possible. Please note that the Service will not provide a concurrence for any habitat assessment report. Although we will do our best to respond within 10 business days if we do not agree with a habitat assessment determination, a lack of a response does not imply our concurrence. GCWA habitat assessment reporting should follow the most recent "GCWA Habitat Assessment Area Data Reporting Instructions" as provided by the Service.

These habitat assessments should be submitted electronically to GCWAreporting@fws.gov and should be titled "GCWA Habitat Assessment." Habitat assessments should include the following information:

- A map with a clear delineation of the property location within the county
- An aerial photo with the date the photo was taken (should be as recent as possible) and a clear delineation of the property boundary
- Detailed descriptions of the habitat (including vegetation associations) on site
- Detailed descriptions of the factors and/or methods used to make the decision that GCWA surveys would not be conducted (e.g., aerial imagery, site-visits, GIS analysis)
- An explanation of why a GCWA survey was not performed
- An explanation of why the site was determined to be unsuitable for the GCWA (if applicable)

We will do our best to respond in writing within 10 business days if we do not concur with a non-habitat determination. If you are notified that we do not concur, clients (or other persons requesting the assessment) must be notified within 10 business days of our non-concurrence.

References

- Bolsinger, J.S. 1997. Patterns of use and variation in the songs of the golden-cheeked warbler (*Dendroica chrysoparia*). Master's thesis, Univ. of Massachusetts, Amherst.
- Campbell, L. 2003. Endangered and threatened animals of Texas: their life history and management. Golden-cheeked warbler (*Dendroica chrysoparia*). Texas Parks and Wildlife Department, Austin, Texas.
- Emlen, J.T. and M.J. DeJong. 1981. The application of song detection threshold distance to census operations. Pp. 346-352. in C.J. Ralph and J.M Scott (eds.). Estimating numbers of terrestrial birds. Studies in Avian Biology No. 6. Cooper Ornithological Society. Lawrence, Kansas. 630 pp.
- Gass, L. 1996. Nesting behavior of golden-cheeked warblers in Travis County, Texas. Master's thesis, Southwest Texas State Univ. (now known as Texas State Univ.), San Marcos.
- Ladd, C., and L. Gass. 1999. Golden-cheeked warbler (*Dendroica chrysoparia*). In The Birds of North America, No. 420 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA. 24 pp.
- Pulich, W.M. 1976. The Golden-cheeked warbler, a bioecological study. Texas Parks and Wildlife. 172 pp.
- Robbins, C. 1981a. Effect of time of day on bird activity. Pp. 275-286. in C.J. Ralph and J.M Scott (eds.). Estimating numbers of terrestrial birds. Studies in Avian Biology No. 6. Cooper Ornithological Society. Lawrence, Kansas. 630 pp.
- Robbins, C. 1981b. Bird activity levels related to weather. Pp. 301-310. in C.J. Ralph and J.M Scott (eds.). Estimating numbers of terrestrial birds. Studies in Avian Biology No. 6. Cooper Ornithological Society. Lawrence, Kansas. 630 pp.
- Verner, J. 1985. Assessment of counting techniques. Pp. 247-302. in R.F Johnston (ed.). Current Ornithology, Volume 2. Plenum Press, New York.