

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AC09

Endangered and Threatened Wildlife and Plants; Threatened Status for Lake Erie Water Snakes (*Nerodia sipedon insularum*) on the Offshore Islands of Western Lake Erie

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: Under the authority of the Endangered Species Act of 1973, as amended (Act), we (the U.S. Fish and Wildlife Service) determine threatened status for the Lake Erie water snake (*Nerodia sipedon insularum*) found among the western Lake Erie offshore islands and adjacent waters in the U.S. and Canada. This listing does not extend the Act's protection to water snakes (*Nerodia sipedon*) found on the U.S. mainland, Canadian mainland, or the adjacent near-shore U.S. islands (e.g., Mouse Island and Johnson Island in Ohio). Small population size, persecution by humans, and habitat destruction are the primary threats. This action implements the Act's protections for the Lake Erie water snake. In addition, it identifies specific handling conditions that do not violate the Act's prohibitions.

EFFECTIVE DATE: The effective date of this rule is August 30, 1999 (see "Effective Date" section under **SUPPLEMENTARY INFORMATION** below).

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours, at offices of the U. S. Fish and Wildlife Service in Fort Snelling, Minnesota, and in Reynoldsburg, Ohio. The Minnesota office is located at the Federal Building, 1 Federal Drive, Fort Snelling, Minnesota 55111-4056. The Ohio office is located at 6950-H Americana Parkway, Reynoldsburg, Ohio 43068.

FOR FURTHER INFORMATION CONTACT: Buddy B. Fazio, endangered species biologist, Ohio (614-469-6923 ext. 13) or Jennifer Szymanski, biologist, Division of Endangered Species, Minnesota (612-713-5342) at the above addresses.

SUPPLEMENTARY INFORMATION:**Background**

This listing provides threatened status and Endangered Species Act protection to the Lake Erie water snake (*Nerodia*

sipedon insularum) located on the western Lake Erie offshore islands and adjacent waters. This listing does not include water snakes (*N. sipedon*) found on the Canadian mainland, U.S. mainland, or adjacent near-shore islands due to those areas having high occurrence of northern water snakes (*N. s. sipedon*), intergrades between the two subspecies, and the low occurrence of Lake Erie water snakes (*N. s. insularum*). This means water snakes located on Ohio's Catawba/Marblehead Peninsula, Mouse Island and Johnson Island (also referred to as Johnson's Island), and Canada's Point Pelee are not protected under the Act by this listing. We define near-shore islands as those islands or rock outcrops located immediately adjacent to, or within 1.6 kilometers (km) (1 mile (mi)) of either mainland.

We define offshore islands as those 22 or more named and unnamed western Lake Erie islands and rock outcrops located greater than 1.6 (km)(1 mi) from the Ohio mainland and Ontario mainland. We define the offshore island's adjacent waters as the western Lake Erie waters surrounding the offshore islands and located greater than 1.6 (km)(1 mi) from the Ohio mainland and Ontario mainland. These islands and rock outcrops and their adjacent waters are located within boundaries roughly defined as 82°22'30" North Longitude, 83°07'30" North Longitude, 41°33'00" West Latitude, and 42°00'00" West Latitude. The U.S. Lake Erie offshore islands and rock outcrops include, but are not limited to, the islands called Kelleys, South Bass, Middle Bass, North Bass, Sugar, Rattlesnake, Green, Gibraltar, Starve, Gull, Ballast, Lost Ballast, and West Sister. Canadian Lake Erie offshore islands and rock outcrops of Lake Erie include, but are not limited to, the islands called Pelee, Middle, East Sister, Middle Sister, North Harbour, Hen, Chick, Big Chicken, and Little Chicken.

Lake Erie water snakes (*N. s. insularum*) were briefly described by Morse (1904) as *Natrix fasciata erythrogaster*. Conant and Clay (1937, 1963) described the Lake Erie water snake subspecies more fully. Lake Erie water snakes are uniformly gray or brown and have either no color pattern or have blotches or banding that are faded or reduced (Conant and Clay 1937, 1963; Camin and Ehrlich 1958; Conant 1982; Kraus and Schuett 1982; King 1987b, 1991). Color pattern variations among Lake Erie water snakes are thought to result from the combined effects of both natural selection and gene flow (King 1993b, 1993c; King and Lawson 1995). On the rocky shorelines

of the western Lake Erie islands, water snakes with unbanded or reduced patterns appear to have a survival advantage compared to fully patterned water snakes (Camin *et al.* 1954; Camin and Ehrlich 1958; Ehrlich and Camin 1960; King 1992a). Female Lake Erie water snakes grow up to 1.1 meters (m) (3.5 feet (ft)) long and are larger than males. Newborn Lake Erie water snakes are the size of a pencil when born during late summer, or early fall.

Lake Erie water snakes use habitat composed of shorelines that are rocky or contain limestone/dolomite shelves and ledges for sunning and shelter (Conant and Clay 1937; Conant 1951; Thomas 1949; Camin and Ehrlich 1958; King 1986, 1987b). Shelter (refugia) occurs in the form of loose rocks, piled rocks, or shelves and ledges with cracks, crevices, and nearby sparse shrubbery (Thomas 1949; King 1986, 1992a). Lake Erie water snakes are found less often on shorelines composed of small stones, gravel or sand (Conant and Clay 1937; Conant 1938; King 1986). Certain types of rip-rap, armor stone, or docks made with rock cribs can serve as shelter for Lake Erie water snakes (Conant and Clay 1937; Conant 1938, 1982; King 1990; Service 1994), provided adequate space exists in these structures that is above Lake Erie's water and ice levels.

The Lake Erie water snake (*N. s. insularum*) and the northern water snake (*N. s. sipedon*) are separate subspecies. Northern water snakes (*N. s. sipedon*) are common and widely distributed in eastern North America, including the Ohio and Ontario mainland, whereas Lake Erie water snakes (*N. s. insularum*) have declined and occur primarily on the offshore islands of western Lake Erie (Schmidt and Davis 1941; Conant 1982; Kraus and Schuett 1982; King 1986, 1987b, 1989a, 1989b, 1991, 1993b, 1996; King and Lawson 1995; King 1997; King *et al.* 1997). Lake Erie water snakes have reduced or no color patterns, while northern water snakes have sharply defined band patterns (Conant and Clay 1937, 1963; Camin and Ehrlich 1958; Conant 1982; Kraus and Schuett 1982; King 1987b, 1991). Lake Erie water snakes occur on rocky limestone and dolomite shorelines; northern water snakes use more heavily vegetated locations with soil, mud or clay (Conant 1951; King 1986, 1987b; King and Lawson 1995). Lake Erie water snakes also have a different diet, a larger adult body size, lower growth rates, and shorter tails compared to northern water snakes (Conant 1951; Hamilton 1951; Langlois 1964; Drummond 1983; King 1986, 1989a, 1993a).

The geographic interface where both subspecies of water snake (*Nerodia sipedon*) occur is the Ohio mainland (the Catawba/Marblehead Peninsula) and its near-shore islands (Mouse Island and Johnson Island). Water snake populations in these areas have northern water snakes (*N. s. sipedon*), Lake Erie water snakes (*N. s. insularum*), and intergrades between the two subspecies (Conant and Clay 1937, 1963; Conant 1938; Camin and Ehrlich 1958; Kraus and Schuett 1982; King 1986, 1987a, 1987b; Pfingston 1991; Reichenbach 1992a, 1992b, 1997, 1998). Intergrades naturally occur on the Peninsula and near-shore islands because there is no barrier to prevent the two subspecies from interbreeding. Lake Erie water snakes (*N. s. insularum*) occur in this interface zone in low frequencies (Conant and Clay 1937; Camin and Ehrlich 1958; Kraus and Schuett 1982; King 1987b; Reichenbach 1997, 1998).

Approximately 95 percent of the Lake Erie water snake (*N. s. insularum*) population's gene pool occurs on the offshore islands of western Lake Erie (King 1998a, 1998b). The offshore islands are isolated from the Ohio and Ontario mainland by approximately 5 to 14 km (3 to 9 mi) of water. Although not a complete barrier, the distance from offshore islands to the mainland (and the near-shore islands) creates a natural barrier. This barrier maintains the integrity of the Lake Erie water snake gene pool by limiting interbreeding between offshore island Lake Erie water snakes and mainland and near-shore northern water snakes. Thus, species experts believe that the genetic pool on the western Lake Erie offshore islands is primarily Lake Erie water snake (Conant and Clay 1963 using data from Cliburn 1961; King 1986, 1987b, 1992a, 1992b, 1998a) and the genetic pool on the mainlands and near-shore islands is predominately northern water snake (*N. s. sipedon*).

Lake Erie water snake movements and related gene flow are lower among mainland and island sites compared to movements among islands (King 1987b; King and Lawson 1995). King (1987b) reports that all 202 water snakes, recaptured up to 1,146 days after initial capture, were found within 50 m to 300 m (164 ft to 984 ft) of the original capture site. No water snakes were observed to move among island study sites separated by as little as 1.3 km (.8 mi), confirming the observations of Fraker (1970) that water snakes practice high site fidelity. King (1987b) estimates that less than 3 percent of adult water snakes move among islands or among sites on a given island, each year, and

thus, by inference, movement between near-shore islands/mainland and off-shore islands is likely very limited. King and Lawson (1995) estimated that, for each generation, an average 9.2 water snakes migrate between Pelee Island and the Ontario mainland, and 3.6 water snakes migrate between the islands and the Ohio mainland. Enserink (1997) notes that populations with 10 or more migrants per generation tend to not experience natural forces, such as natural selection, that promote speciation (i.e., a subspecies eventually evolving into a full species over geologic time). Thus, the Lake Erie water snake remains a unique insular population that is affected by the opposing forces of natural selection and gene flow (King and Lawson 1995).

The historic abundance of water snakes on the Lake Erie islands was first noted in descriptions by early travelers (McDermott 1947; Parker 1976). During the 1700s, the islands of western Lake Erie were called "Les Iles aux Serpentes," the islands of snakes (McDermott 1947; Langlois 1964). Other accounts by early travelers describe islands with "myriads (or 'wreaths') of water snakes basking in the sun" or with water snakes "sunning themselves in heaps, knots and snarls" (Ballou 1878; Hatcher 1945; McDermott 1947; Parker 1976; Wright and Wright 1957:534). Morse (1904) noted that many of the water snakes on the islands of western Lake Erie were uniquely grey, unbanded individuals (at that time, *Natrix fasciata erythrogaster*).

The Lake Erie water snake population has declined over 150 years due to persecution and habitat alteration (Hatcher 1945, Langlois 1964, Conant 1982, Kraus and Schuett 1982; King 1986, 1987a, 1987b, 1990, 1998a, 1998b; King and Lawson 1995; King *et al.* 1997). One example is Middle Island, Ontario, where Thomas (1949) observed up to seven snakes per "clump" of shrubbery at "close intervals" over a distance of several hundred yards of limestone shoreline. King (1986) estimated a population size for Middle Island that is three to five times lower than the number of water snakes collected in a single day by Camin *et al.* (1954) or in two days by Ehrlich and Camin (1960). In another example, it took King (1986) a month or more on several islands to achieve sample sizes similar to that achieved by Conant and Clay (1937) or Camin and Ehrlich (1958) in a single day. Finally, in terms of numbers of water snakes per investigator hour, King (Service 1994) noted that Lake Erie water snake capture rates declined from 10 snakes per hour (during the 1930s through 1950s) to less

than one snake per hour (during the early 1980s), a ten-fold decline over 30 to 50 years.

Recent data also show declines in population density (i.e., number of Lake Erie water snakes per km of shoreline) on three of the four U.S. islands most important to the water snake's long-term survival (King 1998a, 1998b). When compared to the 1986 population estimate (King 1986), the 1998 estimate indicates the overall Lake Erie water snake population continues to remain at a small size. Small population size makes the Lake Erie water snake population vulnerable to extinction or extirpation. (See discussions under the "Issue 2" and "Factor E" sections later in this document.)

The current distribution of Lake Erie water snakes is small compared to their historic distribution. The historic range of the Lake Erie water snake (*N. s. insularum*) included 22 or more offshore islands and rock outcrops of western Lake Erie, a portion of the Ontario mainland that includes Point Pelee, and shorelines of the Catawba/Marblehead Peninsula, Mouse Island, and Johnson Island in Ohio (Conant and Clay 1937, 1963; Conant 1938; Kraus and Schuett 1982; King 1986, 1987a, 1987b, 1998a). Water snakes were found on Green Island in 1930 (Conant 1982) and early museum records (Ohio State University F.T. Stone Laboratory collection) initially confirmed water snakes on West Sister Island. Today, Lake Erie water snakes no longer occur on the Ontario mainland and four islands: West Sister Island, Green Island, Middle Sister Island, and North Harbour Island (King 1986, 1998a, 1998b).

In summary, the Lake Erie water snake has declined in population abundance and in distribution. The current estimate for the U.S. population ranges from 1,530 to 2,030 adults and is restricted to only 8 islands (King 1998a, 1998b). Stated another way, 95 percent of the Lake Erie water snake population is currently restricted to an area with a diameter of less than 40 km (25 mi) comprising 12 western Lake Erie offshore islands in the U.S. and Canada combined (King 1986, 1987a, 1998a, 1998b).

Previous Federal Record

We identified the Lake Erie water snake as a category 2 candidate species in notices of review published in the **Federal Register** on September 18, 1985 (50 FR 37958) and on January 6, 1989 (54 FR 554). Our November 21, 1991, Notice of Review (56 FR 225), changed the snake's status to category 1 candidate. Prior to 1996, a category 2 species was one that we were

considering for possible addition to the Federal List of Endangered and Threatened Wildlife, but for which conclusive data on biological vulnerability and threat were not available to support a proposed rule. We stopped designating category 2 species in the February 28, 1996, Notice of Review (61 FR 7596). We now define a candidate species as a species for which we have on file sufficient information to propose it for protection under the Act (former category 1 classification).

On August 18, 1993, we published a rule proposing to list the Lake Erie water snake (*N. s. insularum*) as threatened (58 FR 43857). The original comment period ended on November 16, 1993, and the deadline for receipt of public hearing requests was October 4, 1993. An October 12, 1993, notice (58 FR 52740) extended the public comment and the hearing request deadline for 30 days. On May 13, 1994, we published in the **Federal Register** a notice of public hearing and reopening of the comment period (59 FR 25024). We held public hearings on South Bass Island, Ohio, on May 31, 1994, and in Port Clinton, Ohio, on June 1, 1994. The comment period closed on June 16, 1994.

On April 10, 1995, Congress enacted a moratorium on the processing of all final listing actions (Public Law 104-6) and rescinded \$1.5 million from our listing budget, which further delayed action on the proposed rule. The Congressional moratorium continued until April 26, 1996, when President Clinton exercised authority given to him in the Omnibus Budget Reconciliation Act of 1996, waiving the moratorium.

During 1995, due to uncertainty as to the extent of the Congressional moratorium, we determined that the available data for the listing decision could have become outdated. To ensure responsible evaluation of current data, we and the Ohio Division of Wildlife funded a two-year study of the Lake Erie water snake population in 1996 and 1997, with some additional data collection and a final report due in 1998. We received the report from Dr. Richard King during June of 1998, and received an addendum to the final report in September of 1998.

On May 8, 1998, we published Listing Priority Guidance for Fiscal Years 1998 and 1999 (63 FR 25502). The guidance clarifies the order in which we will process rule-makings, giving highest priority (Tier 1) to processing emergency rules to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists); second priority (Tier 2) to processing final determinations on proposals to add species to the Lists, processing new

proposals to add species to the Lists, processing administrative findings on petitions (to add species to the Lists, delist species, or reclassify listed species), and processing a limited number of proposed or final rules to delist or reclassify species; and third priority (Tier 3) to processing proposed or final rules designating critical habitat. The processing of this final rule falls under Tier 2.

Summary of Comments and Recommendations

In the August 18, 1993, proposed rule and two subsequent notifications, we requested all interested parties (hereafter called participants) to submit factual reports or information that might contribute to development of a final rule. We contacted appropriate Federal and State agencies, county governments, scientific organizations, and other interested parties in the United States and asked them to comment. We also notified Canadian officials at the Ontario Ministry of Natural Resources offices (located in Toronto, London, and Chatham) and at the Canadian Wildlife Service in Ottawa, Ontario. We published newspaper notices inviting public comment and notifying the public of pertinent hearings in the following newspapers—"The Port Clinton News Herald" (Port Clinton, Ohio), "The Sandusky Register" (Sandusky, Ohio), "The Cleveland Plain Dealer" (Cleveland, Ohio), "The Toledo Blade" (Toledo, Ohio), and "The Call and Post" (Cleveland, Columbus, and Cincinnati, Ohio). We notified island residents of public hearings and the reopened June comment period by placing notices in their local U.S. Post Office boxes.

Public hearings were requested by Donald J. McTigue (of McTigue & Brooks, Attorneys at Law, Columbus, Ohio), representing Baycliff's Corporation, and by H. R. Clagg (President, Johnson's Island Property Owners Association, Marblehead, Ohio). In response, we held public hearings on May 31, 1994, at Put-in Bay, South Bass Island, Ohio, and on June 1, 1994, in Port Clinton, Ohio. Approximately 20 people attended the hearing at Put-in Bay, and approximately 50 people attended the hearing at Port Clinton.

We received comments and information from participants in the form of letters, reports, and oral testimony. Out of 96 total comments received, 89 supported listing the Lake Erie water snake as threatened, while seven did not support listing. We received comments from 2 State agencies, 4 universities, 2 zoos, 5 herpetologists, 2 environmental groups,

1 corporation, 2 private groups, 12 private citizens and 57 school children.

We address comments and oral statements received during the public hearings and comment periods in the following summary of issues. Comments of a similar nature are grouped into a single issue.

Issue 1—Some participants asked if other factors besides habitat loss and persecution, such as predation, pollution, or collecting, contributed to Lake Erie water snake declines.

Response—The effects of predation, pollution, and collecting on Lake Erie water snake population are not clear. We believe it is unlikely that natural predators contribute significantly to Lake Erie water snake declines. Although Lake Erie water snakes are undoubtedly taken as prey by gulls, herons, other birds, and other snakes (Camin and Ehrlich 1958; Goldman 1971; Hoffman and Curnow 1979; King 1986, 1987b, 1993c), the mortality is believed negligible and not likely to adversely affect Lake Erie water snake populations.

Although some water snakes were documented to contain or be adversely affected by certain pollutants (Herald 1949, DeWitt *et al.* 1960, Peterle 1966, Meeks 1968, Novakowski *et al.* 1974), the role of pollution in the decline of Lake Erie water snakes is not clear. To date, comprehensive pollution toxicity studies have not been conducted.

The impact of scientific collecting on the Lake Erie water snake population is also unknown. The number of museum collections and the numerous reports of collections within scientific literature suggest the Lake Erie water snake population can withstand some level of scientific collection. We cannot discount, however, the possible negative impacts of over-collection on the population, particularly if the population declines further. Federal listing will curtail superfluous scientific collecting, as well as any other collecting activity.

Issue 2—Some participants believe the Lake Erie water snake population has seriously declined, while others believe the population has not declined.

Response—The decline of Lake Erie water snakes from historical levels is well documented (Hatcher 1945; McDermott 1947; Ehrlich and Camin 1960; Conant and Clay 1963; Langlois 1964; Conant 1982; Kraus and Schuett 1982; Reichenback 1992; Service 1994; King 1986, 1998a; King *et al.* 1997). In addition to obvious decline in abundance from earlier this century, the Lake Erie water snake's geographic distribution has been restricted. The Lake Erie water snake historically

occurred on the Ohio mainland, the Ontario mainland, 2 or more near-shore Ohio islands, and 22 or more offshore islands and rock outcrops. Today, the Lake Erie water snake does not occur on the Ontario mainland, has disappeared from four islands, and has declined significantly on the remaining islands (King 1986, 1987a, 1998a, 1998b; King *et al.* 1997).

We recognize the population estimates provided by King (1986, 1987a, 1998a, 1998b) and Reichenbach (1997, 1998) as the best available scientific information with respect to current estimates of Lake Erie water snake population size in the United States. The Lake Erie water snake population size is currently estimated to be 1,530 to 2,030 adults (King 1998a, 1998b). When compared to the 1986 population estimate (King 1986), the 1998 estimate verifies that the Lake Erie water snake population has remained at a small size for over a 12-year period (King 1998).

The Lake Erie water snake population suffers from three problems. First, the Lake Erie water snake continues to decline in terms of population density (i.e., water snakes per km of shoreline) on three out of four U.S. islands most important to the water snake's long-term survival (King 1998a, 1998b). Second, current reproduction and survival rates appear insufficient to allow the population to increase to levels higher than existing vulnerable thresholds. Third, low population densities and insular distribution of the Lake Erie water snake render it vulnerable to extinction or extirpation.

Issue 3—Participants asked for an explanation of characteristics that distinguish the Lake Erie water snake subspecies (*Nerodia sipedon insularum*) from the northern water snake subspecies (*Nerodia sipedon sipedon*).

Response—The two water snake subspecies are distinguished from each other by habitat, behavioral, and morphological differences. Lake Erie water snakes occur on rocky limestone and dolomite shorelines with some plants, whereas northern water snakes use more heavily vegetated locations with soil, mud or clay (Conant 1951; King 1986, 1987b; King and Lawson 1995). Lake Erie water snakes also have a different diet, a larger adult body size, lower growth rates, and shorter tails compared to northern water snakes (Conant 1951; Hamilton 1951; Langlois 1964; King 1986, 1989a, 1993a). Furthermore, Lake Erie water snakes are uniformly gray or brown and either have no color pattern or have blotches or banding that are faded or reduced, whereas northern water snakes have

sharply defined, complete banding patterns (Conant and Clay 1937, 1963; Camin and Ehrlich 1958; Conant 1982; Kraus and Schuett 1982; King 1987b, 1991). It is important to note, however, that at locations where the two subspecies co-occur, subspecies intergrades exist which are difficult to identify as either a Lake Erie water snake or northern water snake.

Issue 4—Some participants inquired about the status of the Lake Erie water snake on Johnson Island and the Catawba/Marblehead Peninsula. The participants also asked if these locations are within the documented range of the Lake Erie water snake.

Response—The Peninsula and two near-shore islands (i.e., Johnson Island and Mouse Island) are within the current and historic range of the Lake Erie water snake (Kraus and Schuett 1982; King 1986; King *et al.* 1997; Reichenbach 1998). However, the core gene pool comprising 95 percent of the Lake Erie water snake population occurs on the off-shore islands (i.e., islands located more than one mile from the Ohio or Ontario mainland) of western Lake Erie (King 1986, 1998). The near-shore islands and mainland locations contain a gene pool dominated by northern water snakes (*N. s. sipedon*) with a much lower frequency of Lake Erie water snakes (*N. s. insularum*) and intergrades between the two subspecies (Conant and Clay 1937, 1963; Conant 1938; Conant 1982; Camin and Ehrlich 1958; Kraus and Schuett 1982; King 1986; Pfingston 1991; Reichenbach 1997, 1998).

Issue 5—Some participants believe that water snakes on Ohio's Catawba/Marblehead Peninsula, Mouse Island and Johnson Island should be included in the Lake Erie water snake listing as threatened.

Response—In responding to Issues 3 and 4, above, we explain that the Peninsula, Johnson Island, and Mouse Island comprise a zone dominated by the northern water snake (*N. s. sipedon*). This is because these areas lack the natural barrier, distance from the mainland, that buffers the Lake Erie water snake populations on the offshore islands. Johnson Island located in Sandusky Bay is 480 m (1600 ft) from the Catwaba/Marblehead peninsula that separates it from the other offshore islands. A rip-rap lined causeway connects Johnson Island to the Catwaba/Marblehead peninsula, facilitating the movement of northern water snakes to Johnson Island. Mouse Island is located less than 300 m (1000 ft) from the Ohio shore. We believe that the protection of the offshore populations ensures the

long-term survival of the Lake Erie water snake (*N. s. insularum*).

Issue 6—Some participants asked that "Critical habitat" be declared for Lake Erie water snakes.

Response—As explained later in this rule under the "Critical Habitat" section, we believe designation of critical habitat is not prudent.

Issue 7—Some participants believe water snakes are a nuisance, poisonous, and dangerous to small children, adults, and pets.

Response—The Lake Erie water snake may appear dangerous because of its large body size and defensive temperament. However, when approached by humans it will choose escape over confrontation, if possible. If escape is not possible, like any wild animal, it will try to protect itself. The Lake Erie water snake is not poisonous and does not have fangs; instead, the snake has small teeth that give a pinching bite. In 1994, we and the Ohio Division of Wildlife began a public awareness campaign on the Lake Erie islands. This campaign encourages adults and children to respect and not handle the Lake Erie water snake just as they would respect other wild animals.

Issue 8—Some participants asked if artificial structures or artificial habitat can benefit Lake Erie water snakes. Participants also asked if the presence of artificial structures would cause the Lake Erie water snake subspecies to expand its range into locations where it did not previously occur.

Response—Certain types of artificial habitat (rip-rap, certain armor stone, rock piles, or docks made with rock-filled cribs) may provide shelter for Lake Erie water snakes (Conant and Clay 1937; Conant 1938, 1982; King 1990; Service 1994). However, the extent to which such artificial refugia benefit Lake Erie water snakes is currently unknown. The conservation of Lake Erie water snakes can also be aided by incorporating rock-oriented designs into shoreline developments and associated erosion control structures. Such measures have already been adopted by one developer on Johnson Island (Pfingston 1991; Reichenbach 1992a, 1992b, 1997, 1998). These structures, however, are unlikely to precipitate the expansion of the Lake Erie water snake (*N. s. insularum*) population because of outside pressures such as habitat degradation, natural selection, and natural gene flow from the northern water snake (*N. s. sipedon*).

Issue 9—Some participants asked if listing Lake Erie water snakes as threatened will cause additional permits to be required for shoreline development. Others asked if listing

will prevent landowners from developing their land.

Response—The purpose of the Act is to conserve species such as the Lake Erie water snake (*N. s. insularum*) and the ecosystems upon which they depend. To achieve this goal, it is necessary to minimize the loss of Lake Erie water snakes and their habitat. Thus, the Act affords protection against take (i.e., killing, injuring, capturing, etc.) of Lake Erie water snakes. Projects that will harm individual Lake Erie water snakes or destroy their habitat will require an incidental take permit from us. Under the “Available Conservation Measures” section of this notice, we identify activities likely to result in take of Lake Erie water snakes. However, many of these actions, such as construction of shoreline docks, placement of stone or armor plates to prevent erosion, and other shoreline developments, already require a permit from the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act or section 10 of the Rivers and Harbors Act. Pursuant to the Endangered Species Act, it is the Corps’ responsibility to ensure that issuance of a Corps permit will not jeopardize Lake Erie water snakes on the offshore islands. If permit issuance by the Corps may affect the water snake or other federally listed species, the Corps must enter into section 7 consultation with us. Under section 7 consultation, we work with the Corps and project proponent to find solutions that allow the project to proceed while avoiding jeopardy to listed species. This often means adopting project modifications. If a shoreline project does not require a Corps permit and does not involve Federal funding or other Federal authorization or other action, but will take water snakes, the landowner may be required to obtain an incidental take permit under section 10 of the Act. However, we believe most minor shoreline projects as they are currently undertaken will require few modifications.

Issue 10—A few participants asked if listing Lake Erie water snakes as threatened will cause shoreline property owners to lose their homes or their land.

Response—Listing Lake Erie water snakes as threatened will not cause any landowner or homeowner to lose his/her home or land.

Issue 11—Some participants are concerned that listing Lake Erie water snakes might cause restrictions to be placed against land access or fishing activities.

Response—We do not foresee such restrictions to be enacted. We do not consider unintentional capture or

entanglement as a result of recreational fishing to be a violation of the Act’s prohibition on take provided the snake is immediately freed and released (see the “Available Conservation Measures” section). It is our policy (June 3, 1996; 61 FR 27978) to pursue cooperative partnerships to minimize and resolve conflicts between the implementation of the Act and recreational fishing activities.

Issue 12—Some participants asked which types of shoreline habitat will be affected by listing Lake Erie water snakes as threatened.

Response—Lake Erie water snakes can be found along any shoreline of the islands of western Lake Erie. However, they occur more often on or near rocky shorelines or shorelines composed of limestone/dolomite shelves and ledges (Conant and Clay 1937; Thomas 1949; Conant 1951; Camin and Ehrlich 1958; King 1986, 1987b). The Lake Erie water snake is protected by the Act on the shorelines of all islands and rock outcrops of western Lake Erie, except Mouse Island, Johnson Island, or any other islands and rock outcrops within 1.6 km (1 mi) of the Ohio or Ontario mainland.

Issue 13—Some participants expressed concern about being prosecuted for removing a Lake Erie water snake from their basement or yard, or from a fishing hook.

Response—Provided that private individuals follow the specific handling conditions identified in this rule, the Service will not prosecute them for removing Lake Erie water snakes from their property or from accidental capture while fishing (see the “Available Conservation Measures” section).

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, we have determined that the Lake Erie water snake (*Nerodia sipedon insularum*) on western Lake Erie offshore islands and adjacent waters (i.e., offshore islands and their surrounding waters that are more than 1.6 km (1 mi) from the Ohio and Ontario mainland) should be classified as a threatened species. We followed procedures found in section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Lake Erie water snake

(*Nerodia sipedon insularum*) are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

Habitat destruction is a major cause of the decline of Lake Erie water snakes (Ashton 1976; Kraus and Schuett 1982; King 1986; King *et al.* 1997). During the past 60 years, shoreline habitat important to the water snakes has been significantly altered, degraded, and developed through the construction of shoreline cottages, marinas, docks, and sea walls, the filling of lagoons, and the mining of quarries (Hatcher 1945; Core 1948; Kraus and Schuett 1982; King 1985, 1986; R. Conant, University of New Mexico, *in litt.* 1993; King *et al.* 1997). Current development on many western Lake Erie islands (e.g., Kelleys, North Bass, Middle Bass, South Bass, Pelee) is resulting in increased loss of Lake Erie water snake habitat. Some examples of currently proposed developments affecting Lake Erie water snake habitat include a large resort proposed for Middle Bass Island, a 1,220 m (4,000 ft) long sea wall proposed for North Bass Island, and airport expansions proposed for Kelleys Island and Middle Bass Island (Service, *in litt.* 1999).

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

We know of no recreational or commercial overutilization of the Lake Erie water snake. The impact of scientific collecting on the Lake Erie water snake population is not known, but negative impacts from possible overcollecting cannot be discounted. The historical collection of Lake Erie water snakes is well documented, with reports of from 40 water snakes (Hamilton 1951; Langlois 1964; Conant 1982; Ohio Division of Natural Areas and Preserves, unpublished data, 1993) to hundreds of water snakes (Conant and Clay 1937, 1963; Conant 1938, 1951, 1982; Camin and Ehrlich 1958) collected per island during repeated visits. If the Lake Erie water snake population continues to decline, all sources of mortality, including collecting, will be problematic for the species (see “Factor E”).

C. Disease or Predation

We are not aware of any evidence showing that natural predation has contributed significantly to the decline of Lake Erie water snakes. Although predation by herring gulls (*Larus argentatus*), great blue herons (*Ardea herodias*), robins (*Turdus migratorius*),

and blue racers (*Coluber constrictor*) have occurred (Camin and Ehrlich 1958; Goldman 1971; Hoffman and Curnow 1979; King 1986, 1987b, 1993c), this very low level of mortality is not likely to have a significant affect on the Lake Erie water snake population. However, as stated above, populations like the Lake Erie water snake that occur at low densities can be adversely impacted by any mortality factor, whether natural or human-caused.

Little is known about the impacts of disease on water snakes (*Nerodia sipedon*). We believe disease is currently only a minor problem for Lake Erie water snakes. However, we recognize that the synergistic effects of pollutants, other environmental stress (such as habitat loss), and the locally dense nature of some localized sub-populations could expose water snakes to significant disease problems.

D. The Inadequacy of Existing Regulatory Mechanisms

Until now, Lake Erie water snakes have had no legal protection from take, harm, or habitat loss within the United States. The Ohio Division of Wildlife (ODOW) granted State threatened status (chapter 119 of the Ohio Revised Code) to the Lake Erie water snake (*N. s. insularum*) in 1990 but this is an administrative designation that does not confer legal protection. The Lake Erie water snake is listed as endangered by the Society for the Study of Amphibians and Reptiles but this also confers no legal protection. A small fraction of the land area on the western Lake Erie islands comprises public land. The Ohio State University and the Ohio Department of Parks and Recreation (R.B. King, Northern Illinois University, *in litt.* 1993) own property that is inhabited by Lake Erie water snakes, and thus is minimally protected from habitat destruction.

The Lake Erie water snake (*N. s. insularum*) subspecies is currently protected in Ontario, Canada, under the provincial Endangered Species Act, R.S.O. 1980, c. 138, in 1977 (Regulation 328; Regulation 195/88 which amends Regulation 287 of Revised Regulations of Ontario). The Lake Erie water snake (*N. s. insularum*) subspecies is also listed as federally endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). In addition, the species *Nerodia sipedon* is protected under the Ontario Game and Fish Act (Regulation 520; Regulation 113/88 which amends Regulation 397/84 of Revised Regulations of Ontario). Although these regulations provide some protection for Lake Erie water snakes at a few sites in Canada, the

majority of the subspecies' island habitat remains unprotected, including 13 islands within the United States. Of the 5 core islands most important to the lake Erie water snake, 4 occur in the United States with little or no protection for the species and its habitat.

Three preserves exist in Ontario, Canada, which are inhabited by Lake Erie water snakes and protected from habitat loss. On Pelee Island, Ontario, the Lake Erie water snake is protected by Provincial preserves at Fish Point and Lighthouse Point (I. Bowman and P. Prevett, Ontario Ministry of Natural Resources, pers. comm. 1994). The Essex Region Conservation Authority also set aside preserve land on Pelee Island which benefits water snakes and local plant species (D. Krouse, ERCA, pers. comm. 1994). East Sister Island is a Lake Erie water snake Provincial preserve, but the population of water snakes on the island is small and declining (King 1986; I. Bowman and P. Prevett, Ontario Ministry of Natural Resources, pers. comm. 1994; R. King, Northern Illinois University, pers. comm. 1998). We believe the regulatory mechanisms are inadequate because of the small number of water snakes in preserves and the vulnerability from lack of regulatory protection outside of preserves.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Persecution by humans is the most significant and well documented factor in the decline of Lake Erie water snakes (Conant 1982, Kraus and Schuett 1982, King 1986, King *et al.* 1997; Service *in litt.* 1998). During the 1800s, pigs were released on some islands to exterminate snakes (Hatcher 1945, McDermott 1947). All snake species were eradicated from Rattlesnake Island by 1930 (Conant 1982), but a few water snakes recently moved to the island (King 1987b; King *et al.* 1997). Ehrlich and Camin (1960) told of a campaign of extermination waged against water snakes on Middle Island. Conant and Clay (1963) noted that persecution of island water snakes was severe. Persecution by humans is still a serious problem on several islands (Service *in litt.* 1998). The effects of past and current persecution are evident today and are a threat to the continued existence of the water snake.

The influences of factors A through E, above, on the Lake Erie water snake are exacerbated by the small size of the population. The current low population densities and insular distribution of Lake Erie water snakes make them vulnerable to extinction or extirpation from catastrophic events, demographic variation, negative genetic effects, and

environmental stresses such as habitat destruction and extermination (Shaffer 1981; King 1987b, 1998b; Dodd 1993; Nunney and Campbell 1993; King *et al.* 1997). Though populations naturally fluctuate, small populations are more likely to fluctuate below the minimum viable population threshold needed for long-term survival. Likewise, chance variation in age and sex ratios can cause death rates to exceed birth rates, causing a higher risk of extinction in small populations. Finally, decreasing genetic variability in small populations increases the vulnerability of a species to extinction due to inbreeding depression (decreased growth, survival, or productivity caused by inbreeding) and genetic drift (loss of genetic variability that takes place as a result of chance). A recent study of snakes (adders) in Sweden found that inbreeding depression in isolated populations resulted in smaller litter size, higher proportion of deformed and stillborn offspring, and lower degree of genetic heterozygosity (Madsen *et al.* 1996), which in turn cause reduced fertility and survivorship. Thus, in small populations, environmental, demographic, and genetic changes can result in an accelerating slide toward extinction.

Mace and Lande (1991) describe a system used to categorize the status of a species as Vulnerable, Endangered, or Critical according to risk of extinction criteria. Applying these criteria to the Lake Erie water snake population, King (1998b) suggests the population in the United States qualifies as Endangered or Vulnerable. Mace and Lande (1991) define Vulnerable as having a 10 percent probability of extinction within 100 years, and define Endangered as having a 20 percent probability of extinction within 20 years or 10 generations (whichever is longer). King (1998b) indicates that the Lake Erie water snake population meets these criteria because of (1) the decline of island sub-populations of the snakes, (2) accelerated habitat alteration (e.g., development) during the 1990s, and (3) potential ecological interactions with introduced species. Zebra mussels (*Dreissena polymorpha*) and round gobies (*Neogobius melanostomus*) can reduce water snake prey (i.e., fish) availability (Dermott and Munawar 1993; Fitzsimons *et al.* 1995; Jude *et al.* 1995).

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the Lake Erie water snake in making this final listing determination. Based on this evaluation, we believe the Lake Erie water snake

(*Nerodia sipedon insularum*) meets the criteria for protection under the Act on the basis of persecution, destruction and modification of habitat, curtailment of its range, significant population decline from historical levels, flat and vulnerable population status in the 1990s, and the inadequacy of regulatory mechanisms. The present distribution and abundance of the Lake Erie water snake is at risk given the potential for these impacts to continue. Therefore, based on this evaluation, the preferred action is to list the Lake Erie water snake as a threatened species. The Act defines a threatened species as one that is likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range. Federal threatened status for the Lake Erie water snake is effective immediately upon publication of this final rule (see "Effective Date" section below).

Effective Date

In accordance with 5 U.S.C. 553(d)(3), we have found good cause to make the effective date of this rule immediate. Because of low Lake Erie water snake population densities, continuing eradication by people, and accelerating habitat destruction, protection provided by the Act is granted to Lake Erie water snakes (*Nerodia sipedon insularum*) located on the western Lake Erie offshore islands and adjacent waters immediately upon publication of this final rule. We believe eradication efforts and habitat destruction, in particular, would temporarily intensify if the effective date of the Act's protection is delayed by the normal 30 days after rule publication. We also believe that this sudden increase in water snake persecution and habitat destruction would seriously jeopardize the already small, vulnerable Lake Erie water snake population to the extent that the long-term recovery process would be irreversibly impaired.

Critical Habitat

Section 3 of the Act defines critical habitat as: (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed

to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, we designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist—(1) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species. We find that designation of critical habitat is not prudent for the Lake Erie water snake for both reasons stated above.

Potential benefits of critical habitat designation derive from section 7(a)(2) of the Act, which requires Federal agencies, in consultation with us, to ensure that their actions are not likely to jeopardize the continued existence of listed species or to result in the destruction or adverse modification of critical habitat of such species. Critical habitat designation, by definition, directly affects only Federal agency actions. Since the Lake Erie water snake is semi-aquatic, Federal actions that might affect this species and its habitat include those with impacts on island shoreline habitat and water quality. Most activities that occur would be subject to review under section 7(a)(2) of the Act, regardless of whether critical habitat was designated. The Lake Erie water snake has become so restricted in distribution that any significant adverse modification or destruction of occupied habitats would likely jeopardize the continued existence of this species. This would also hold true as the species recovers and its numbers increase. As part of the development of this rule, Federal and State agencies were notified of this species' general distribution, and we requested that they provide data on proposed Federal actions that might adversely affect the species. Should any future projects be proposed in areas inhabited by this snake, the involved Federal agency will already have the distributional data needed to determine if its action may impact the species, and if needed, we will provide more specific distribution information. Therefore, habitat protection for the Lake Erie water snake can be accomplished through the section 7 jeopardy standard, and there is no benefit in designating

currently occupied habitat of this species as critical habitat.

Though critical habitat designation directly affects only Federal agency actions, controversy resulting from critical habitat designation has been known to reduce private landowner cooperation in the management of species listed under the Act. Critical habitat designation could affect landowner cooperation within habitat currently occupied by the snake and in areas unoccupied that might be needed for recovery. The publication of critical habitat maps in the **Federal Register** and local newspapers, and other publicity or controversy accompanying critical habitat designation may increase the potential for persecution as well as other collection threats. This applies to currently occupied habitat and any unoccupied habitat that were to be designated and subsequently recolonized by the species. Factor "E" of the "Summary of Factors Affecting the Species" section details the significant human persecution threats that have affected and continue to affect Lake Erie water snakes.

Based on the above analysis, we have concluded that critical habitat designation would provide little additional benefit for this species beyond those that would accrue from listing under the Act. We also conclude that any potential benefit from such a designation would be offset by an increased level of vulnerability to collecting, persecution, and by a possible reduction in landowner cooperation to manage and recover this species. Therefore, the designation of critical habitat for Lake Erie water snake is not prudent.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the States. The Act also requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against take of species and harm to species are discussed, in part, below.

Following listing, a number of recovery actions may be initiated by us, in cooperation with the State of Ohio and numerous other parties. Some possible recovery actions are as

follows—(1) continuation of a public outreach program directed toward island residents and visitors; (2) habitat protection measures, as needed; (3) voluntary conservation agreements with landowners; (4) design and testing of artificial refugia; (5) increased law enforcement efforts; (6) voluntary land acquisition or conservation easements from willing sellers; (7) monitoring studies; (8) winter hibernation studies; (9) reintroduction of Lake Erie water snakes to appropriate locations; and (10) captive rearing.

A public outreach program by us and the Ohio Division of Wildlife has been active on the Lake Erie islands since 1994. The program encourages a “live and let live” attitude for snakes living among island residents and visitors. A poster contest, outdoor sign campaign, and personal contacts are helping island residents and visitors realize that Lake Erie water snakes are not poisonous and pose little threat to people. We look forward to the continuing success of this public outreach program as part of the overall effort to achieve recovery of the Lake Erie water snake.

Listing Lake Erie water snakes as threatened provides much needed coordination and legal protection. Federal threatened status for Lake Erie water snakes will automatically result in State of Ohio endangered status, triggering effective State legal protection against take. Threatened status in the United States will facilitate Federal coordination for Lake Erie water snakes in the form of partnerships with landowners, planning and management with Canadian wildlife officials, consultations on Federal projects (section 7 of the Act), enforcement (section 9 of the Act), conservation planning (section 10 of the Act), and permits (section 10 of the Act).

Section 7(a) of the Act, requires Federal agencies to evaluate their actions with respect to any species, and its critical habitat (if declared), that is proposed or listed as endangered or threatened. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us. Possible Federal actions may include projects, activities, and permit issuance by the Corps, the Natural Resources Conservation Service, the U.S.

Environmental Protection Agency, the U.S. military services, the National Park Service, our Ottawa National Wildlife Refuge, and Federal agency participation in the Great Lakes Initiative, or other cooperative U.S. efforts involving Canadian governments.

The section 7 consultation process will play an important role in recovery of the Lake Erie water snake. The resulting habitat protection, habitat restoration, education of agency personnel, practical seasonal recommendations for construction activity, and beneficial project designs are vital for the Lake Erie water snake recovery. Beneficial shoreline projects contain designs that utilize rock and vegetation to provide shelter or forage areas for Lake Erie water snakes. Examples of potentially beneficial project designs are docks with rock-filled cribs, shoreline erosion barriers that utilize medium to large size stone, and reefs beneficial to small fish and amphibians that allow Lake Erie water snakes to safely feed.

The Act and implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to our agents and State conservation agencies.

Under the Act, permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are described in 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, for the enhancement or propagation or survival of the species, or for incidental take in connection with otherwise lawful activities. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act.

It is our policy (July 1, 1994; 59 FR 34272) to identify to the maximum extent practicable, at the time a species is listed, those activities that do or do not constitute a violation of section 9 of the Act. The intent of this policy is to

increase public awareness of the effect of this listing on proposed and ongoing activities on the offshore islands and adjacent waters of western Lake Erie. We believe that, based on the best available information, the following actions will not result in a violation of section 9 with respect to Lake Erie water snakes—(1) brief handling necessary to transfer individual water snakes from roads, sidewalks, structures, yards, and watercraft to adjacent habitat upon immediate release; (2) brief handling necessary to free and immediately release to adjacent habitat a water snake unintentionally hooked or entangled in fishing equipment; (3) non-harmful actions that encourage water snakes to leave, stay off, or keep out of a residence (including swimming pools and yards), a business building, the top decks of docks, foot paths, and water equipment (including boats, rafts, swimming decks, water intakes, and recreational gear); for example, a homeowner using a pool net pole to gently nudge a water snake away from his property; (4) actions that may affect offshore island water snakes and are authorized, funded or carried out by a Federal agency, when conducted in accordance with any reasonable and prudent measures given by the Service in accordance with section 7 of the Act; (5) actions authorized by a section 10 permit under the Act.

We believe violations of section 9 of the Act include, but are not limited to, the following actions on the Lake Erie offshore islands conducted without a section 10 permit under the Act—(1) intentional killing or injuring of water snakes by any means; (2) harassing water snakes in any offshore island or adjacent water habitat; (3) unauthorized collecting or handling of the water snake; (4) altering or destroying shoreline water snake habitat, including adjacent vegetation; (5) illegal discharge or dumping of toxic chemicals or other pollutants into areas occupied by the water snake.

Requests for copies of the regulations regarding listed wildlife and inquiries about prohibitions and permits may be addressed to the Division of Endangered Species, Bishop Henry Whipple Federal Building, 1 Federal Drive, Ft. Snelling, Minnesota 55111-4056 (612-713-5350; fax 612-713-5292).

National Environmental Policy Act

We have determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. We

published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Paperwork Reduction Act

This rule does not contain any new collections of information other than those already approved under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and assigned Office of Management and Budget clearance number 1018-0094. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information, unless it displays a currently valid control number. For additional information concerning permit and associated requirements for threatened species, see 50 CFR 17.32.

References Cited

A complete list of all references cited herein, as well as others, is available upon request (see **ADDRESSES** section).

Authors

The primary authors of this proposed rule are Buddy B. Fazio (614-469-6923) of our Reynoldsburg, Ohio office, and Jennifer Szymanski (612-713-5342) of our Minnesota Regional Office (see **ADDRESSES** section.)

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, amend part 17, subchapter B of chapter I, title 50 of the

Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:
Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. Amend § 17.11(h) by adding the following to the List of Endangered and Threatened Wildlife, in alphabetical order under REPTILES:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
REPTILES							
*	*	*	*	*	*	*	*
Snake, Lake Erie water.	<i>Nerodia sipedon insularum.</i>	U.S.A. (OH), Canada (Ont.).	Lake Erie offshore Islands and their adjacent waters (located more than 1 mile from main-land)—U.S.A. (OH), Canada (Ont.).	T	665	N/A	N/A
*	*	*	*	*	*	*	*

Dated: August 16, 1999
John G. Rogers,
Acting Director, Fish and Wildlife Service.
[FR Doc. 99-22459 Filed 8-27-99; 8:45 am]
BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 20

RIN 1018-AF24

Migratory Bird Hunting; Migratory Bird Hunting Regulations on Certain Federal Indian Reservations and Ceded Lands for the 1999-2000 Early Season

AGENCY: Fish and Wildlife Service, Interior.
ACTION: Final rule.

SUMMARY: This rule prescribes special early season migratory bird hunting regulations for certain tribes on Federal Indian reservations, off-reservation trust lands and ceded lands. This responds to

tribal requests for U.S. Fish and Wildlife Service (hereinafter Service or we) recognition of their authority to regulate hunting under established guidelines. This rule allows the establishment of season bag limits and, thus, harvest at levels compatible with populations and habitat conditions.

DATES: This rule takes effect on September 1, 1999.

ADDRESSES: You may inspect comments received, if any, on the proposed special hunting regulations and tribal proposals during normal business hours in Room 634, Arlington Square Building, 4401 N. Fairfax Drive, Arlington, Virginia. You should send communications regarding the documents to: Director (FWS/MBMO), U.S. Fish and Wildlife Service, ms 634-ARLSQ, 1849 C Street, NW., Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT: Ron W. Kokel, Office of Migratory Bird Management, U.S. Fish and Wildlife Service, (703/358-1714).

SUPPLEMENTARY INFORMATION: The Migratory Bird Treaty Act of July 3,

1918 (40 Stat. 755; 16 U.S.C. 703 *et seq.*), authorizes and directs the Secretary of the Department of the Interior, having due regard for the zones of temperature and for the distribution, abundance, economic value, breeding habits, and times and lines of flight of migratory game birds, to determine when, to what extent, and by what means such birds or any part, nest or egg thereof may be taken, hunted, captured, killed, possessed, sold, purchased, shipped, carried, exported or transported.

In the August 13, 1999, **Federal Register** (64 FR 44384), we proposed special migratory bird hunting regulations for the 1999-2000 hunting season for certain Indian tribes, under the guidelines described in the June 4, 1985, **Federal Register** (50 FR 23467). The guidelines respond to tribal requests for Service recognition of their reserved hunting rights, and for some tribes, recognition of their authority to regulate hunting by both tribal members and nonmembers on their reservations. The guidelines include possibilities for: