for public inspection, by appointment, from 8:00 a.m. to 4:00 p.m., Monday through Friday, at the Arlington, Virginia address.

FOR FURTHER INFORMATION CONTACT: Dr. Charles W. Dane, Chief, Office of Scientific Authority, at the above address (phone 703–358–1708).

## SUPPLEMENTARY INFORMATION

## **Background**

Tuataras are a unique group of lizardlike reptiles now restricted to New Zealand and represented by the single genus Sphenodon. Because of excessive human hunting and predation by introduced animals, especially rats, tuataras are now found only on various small islands off the coast of the two main islands of New Zealand. For many years, the prevailing view among zoologists was that the living tuataras represented only the single species Sphenodon punctatus, and that was the only species on the U.S. List of **Endangered and Threatened Wildlife** (June 2, 1970; 35 FR 8495).

A recent paper (Daugherty, C.H., A. Cree, J.M. Hay, and M.B. Thompson, 1990, "Neglected taxonomy and continuing extinctions of tuatara," Nature: 347:177–179) pointed out that, based on a morphological and genetic analysis, a second species, S. guntheri, survived on North Brother Island in Cook Strait. S. guntheri actually had been first described in 1877, but over time had come to be regarded as just a component of S. punctatus. The population of tuatara on North Brother Island was known at the time that S. punctatus was listed as endangered pursuant to the Act and was considered to be a population of *S. punctatus*. The recognition of *S. guntheri* as a distinct species may provide it with increased conservation attention, thereby helping to ensure its continued survival on the one small island from which it is known.

The above technical paper explaining the status of S. guntheri was only recently brought to the attention of the U.S. Fish and Wildlife Service (Service) through the kindness of Ms. Cheri L. Hosley of Brownstown, Michigan. Subsequently, the Service contacted several authorities, who supported recognition of *S. guntheri* as a distinct species, and also the Government of New Zealand, which responded favorably. Finally, the World Conservation Union's 1994 IUCN Red List of Threatened Animals designates S. guntheri as a full species and as endangered.

The above information has persuaded the Service of the need to distinguish *S*.

guntheri as a separate species on the List of Endangered and Threatened Wildlife, and to classify it there as endangered, together with the species *S. punctatus*. It is emphasized that the reptiles included within *S. guntheri* are already legally covered by an endangered species classification and will remain so until a final decision on this proposal. This proposal does not impact or otherwise change the legal status of either species and does not affect the kinds of activities that are permitted or prohibited.

## **Summary of Factors Affecting the Species**

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 set forth the procedures for adding species to the Federal Lists. A species may be determined to be endangered or threatened due to one or more of the following five factors described in Section 4(a)(1). These factors and their application to the Brother's Island tuatara (*Sphenodon guntheri*) are as follows (information from Daugherty *et al.* 1990, as indicated above):

A. The present or threatened destruction, modification, or curtailment of its habitat or range. Sphenodon guntheri is known only from North Brother Island in Cook Strait, New Zealand. The island has an area of only about 10 acres (4 hectares), and the tuatara population is restricted to only about 4.2 acres (1.7 hectares) of scrub habitat on top of the island. The population consists of fewer than 300 adults.

Introduced rats, rabbits, goats, and other animals have damaged habitat of other tuatara populations and could potentially do the same on North Brother Island if *S. guntheri* is not recognized as needing special conservation attention.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Not currently known to be a problem. However, automation of the island lighthouse in 1990 led to departure of the resident keepers who had deterred illegal landings and poaching for 123 years. The very small tuatara population could thus be vulnerable to human hunting and harassment.

C. Disease or predation. Predation by introduced rats, dogs, cats, and pigs have been a severe problems for other tuatara populations. Deliberate or accidental introduction of even a few such animals on North Brother Island could be disastrous for the tiny tuatara

population there. Departure of the lighthouse keepers and failure to recognize *S. guntheri* as a unique species warranting special conservation attention could open the way for such a disaster.

D. The inadequacy of existing regulatory mechanisms. Although all tuataras have long received complete legal protection, there has been no recognition of separate and highly restricted species or subspecies, such as *S. guntheri*, that might require special protection and management in order to survive. The departure of the lighthouse keepers from North Brother Island in 1990 has made *S. guntheri* especially vulnerable in this regard.

E. Other natural or manmade factors affecting its continued existence. Small and restricted animal populations, especially if adversely affected through human agency, are highly susceptible to natural disasters and to reduction of genetic viability.

The decision to propose endangered status for the Brother's Island tuatara was based on an assessment of the best available scientific information, and of past, present, and probable future threats to this species. It occurs in very small numbers in a highly restricted range and is vulnerable to a variety of problems. If this reptile is not given appropriate recognition and protection, extinction will become more likely. Critical habitat is not being proposed, as such designation is not applicable to foreign species.

## **Available Conservation Measures**

Conservation measures provided to species listed as endangered or threatened pursuant to the Act include recognition, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages conservation measures by Federal, international, and private agencies, groups, and individuals.

Section 7(a) of the Act, as amended, and as implemented by regulations at 50 CFR Part 402, requires Federal agencies to evaluate their actions that are to be conducted within the United States or on the high seas, with respect to any species that is proposed or listed as endangered or threatened and with respect to its proposed or designated critical habitat (if any). 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 proposed Federal action may affect a listed species, the responsible Federal agency must enter