

SUMMARY OF COMMENTS AND
RECOMMENDATIONS

Section 4(b)(1)(C) of the Act requires that a summary of all comments and recommendations received be published in the FEDERAL REGISTER prior to adding any species to the list of Endangered and Threatened Wildlife and Plants.

In the August 1, 1977, FEDERAL REGISTER proposed rulemaking (42 FR 38921-38924) and associated August 1, 1977, Press Release, all interested parties were invited to submit factual reports or information which might contribute to the formulation of a final rulemaking.

All public comments received during the period August 1, 1977, to November 29, 1977, were considered.

In addition to the comments received from the Governors of Florida, Alabama, and Mississippi, comments were received from 26 individuals and representatives of various organizations.

Mr. Jack A. Crockford, Director of the Georgia Department of Natural Resources, supported the proposed listing and included a copy of the recommendation to add this species to the Georgia protected species list.

Howard Lawler (Atlanta Zoological Park) submitted two letters in support of the proposed listing. The first (September 28, 1977) supported the listing and added additional information on the presence of pesticides in indigo fat samples from a paper in press in Herpetological Review. In the second (October 24, 1977), Dr. Lawler expressed concern because some individuals may feel the indigo snake is not Threatened because certain populations are doing well. Dr. Lawler emphasized that continued and uncontrolled "non-commercial" collecting without regulation would endanger populations in most parts of the range. He restated his support for the proposal. R. H. Hunt (Curator of Reptiles, Atlanta Zoological Park) also supported the proposal and mentioned habitat modification, pesticides, and commercial trade as being involved in the species' decline.

Bob Truett (Birmingham Zoo) supported the proposed rulemaking, again singling out overcollection for pets as a main cause of the decline in indigos. However, Mr. Truett feels that the Texas indigo snake should also be included as a Threatened species since protection for only eastern indigo snakes may cause harm to the other subspecies. Mr. Truett also commented extensively on the detrimental influences of "Rattlesnake Roundups" on native fauna, including indigo snakes, in parts of the Southeast. Mr. Truett continues that no protection for the indigo snake will be effective until it controls or eliminates the Rattlesnake Roundups throughout the range of

before any such species is determined to be a Threatened species or an Endangered species. A letter was sent to the Governors of the States of Florida, Georgia, Alabama, Mississippi, and South Carolina on August 5, 1977, notifying them of the proposed rulemaking for the eastern indigo snake. On this same date, a memorandum was sent to the Service Directorate and affected Regional personnel, and letters were sent to other interested parties.

Official comments were received from Governor Reubin O'D. Askew of Florida, Governor George Wallace of Alabama, and Governor Cliff Finch of Mississippi.

Governor Askew referred the letter concerning the proposed rulemaking to Colonel Robert Brantly, Director of the Florida Game and Fresh Water Fish Commission, for appropriate response. Lt. Col. Brantley Goodson, Director of the Division of Law Enforcement of the Florida Game and Fresh Water Fish Commission, replied. Lt. Col. Goodson detailed the problems encountered by the State in enforcing their law concerning protection of the eastern indigo snake. A rather sizable black market is continuing to deplete populations in the State for export to commercial markets, especially in the North. Not only are individuals involved, but large scale reptile wholesaling companies as well. According to Lt. Col. Goodson, these individuals are aware that the indigo is protected in Florida and will admit that Florida is the source of their supply. Lt. Col. Goodson noted that Florida is continuing to prosecute violations of their protected species laws and has cooperated with Fish and Wildlife Service agents in efforts to halt illegal trade in reptiles. He stressed the need for continued cooperation and solicited the Service's support in dealing with the indigo snake trade situation.

Governor Wallace indicated that while Alabama no longer supports known populations of eastern indigo snakes, the Alabama Cooperative Wildlife Research Unit is conducting research on this species. Some snakes may be released in Alabama in good habitat where protection can be provided, according to Governor Wallace. He supported a Threatened status.

Governor Finch noted that the eastern indigo snake is officially protected in the State of Mississippi and enclosed a copy of the regulations regarding such protection with his comments. Governor Finch stated that while no confirmations of the indigo snake have been made since the 1950's, a reported sighting occurred in Stone County in 1977 and that indigo snakes may still be present in South Mississippi in longleaf pine areas where gopher tortoises occur. The Governor supported the listing of this species as Threatened.

[4310-55]

PART 17—ENDANGERED AND THREATENED
WILDLIFE AND PLANTSListing of the Eastern Indigo Snake as a
Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines the eastern indigo snake (*Drymarchon corais couperi*) to be a Threatened species. This action is being taken because of the threats of habitat modification, collection for the pet trade, and gassing while in gopher tortoise burrows, and provides Federal protection for the species. The eastern indigo snake is known only from Florida and Georgia. Historically, the species has been recorded in Alabama, Mississippi, and South Carolina.

DATE: This rule becomes effective on March 3, 1978.

FOR FURTHER INFORMATION
CONTACT:

Mr. Keith M. Schreiner, Associate Director, Federal Assistance, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240, 202-343-4646.

SUPPLEMENTARY INFORMATION:

BACKGROUND

On August 1, 1977, the Service published a proposed rulemaking in the FEDERAL REGISTER (42 FR 38921-38924) advising that sufficient evidence was on file to support a determination that the eastern indigo snake was a Threatened species pursuant to the Endangered Species Act of 1973, 16 U.S.C. 1531 et seq. That proposal summarized the factors thought to be contributing to the likelihood that this snake could become Endangered within the foreseeable future, specified the prohibitions which would be applicable if such a determination were made, and solicited comments, suggestions, objections and factual information from any interested person. Section 4(b)(1)(A) of the Act requires that the Governor of each State or Territory, within which a resident species of wildlife is known to occur, be notified and provided 90 days to comment

the snake. Finally, Mr. Truett indicates that off-road vehicles may become a serious problem to the indigo snake, as their use is increasing in many areas. Robert Mount (Auburn University) also commented on Rattlesnake Roundups and their detrimental impact on the eastern indigo snake and supported the proposed Threatened status.

Rattlesnake Roundups generally employ gasoline dumped down the burrows of gopher tortoises to cause the snakes to vacate and thus be captured. However, many snakes, including indigo snakes, are killed by this practice. Jane Risk (Animal Protection Institute) and Mark Stahle (New Cumberland, Pa.) commented on this practice and supported the proposed rulemaking. Mr. Stahle and Ms. Risk also commented on overcollection as a threat to the species.

Richard M. Blaney (West Virginia State College) supported the proposal, citing increases in price for this species from \$17 in 1965 to over \$200 presently. He further stated that regulations should prohibit the sale of all native fauna except by licensed dealers to permitted institutions or individuals; private possession or collection should not be restricted.

The following individuals supported the proposal for the reasons listed in the proposed rulemaking: Bette Bechtel (Valdosta State College), Howard Campbell (National Fish and Wildlife Laboratory), Steven Christman (National Fish and Wildlife Laboratory), James A. Timmerman (South Carolina Wildlife and Marine Resources Department), Sherrard Coleman (Environmental Defense Fund), Donna Ripley (Whittier, California), W. Troy Allen (Massachusetts Herpetological Society), Audrey Jackson (Tarpon Springs, Florida), W. A. Black (Cahaba Heights, Alabama), and Delano Deen (Hurricane Creek Protective Society). No new data were supplied.

Joseph W. Jacob, Jr. (Mississippi Natural Heritage Program) provided updated information on the distribution of the eastern indigo snake in Mississippi. Daniel Tobin (Associate Director, National Park Service) supported the designation as threatened on behalf of the National Park Service. He indicated that if finalized, the Park Service would propose to study areas in three Parks in its jurisdiction for suitability for designation as Critical Habitat. He further suggested that consideration be given to acquiring lands adjacent to De Soto National Memorial that might qualify as Critical Habitat. Mr. Tobin also expressed interest in developing a cooperative management agreement under which staff of De Soto National Memorial would provide protection, interpretation, or other activities required for proper management of the land acquired as Critical Habitat.

Daniel K. Tabberer (NSTL Station, Mississippi) indicated that he had talked with E. D. Keiser (University of Mississippi) who felt that the species should not be listed because of lack of controls; Dr. Keiser apparently feels the proposal is a case of overreaction to a problem, and that habitat preservation is the best way to insure the preservation of individual species. Mr. Tabberer recommended no listing for Arkansas, Louisiana, and Mississippi. Thomas C. Nelson (Deputy Chief, Forest Service) replied that while the Forest Service had no substantive information, informal contacts with herpetologists familiar with the species supports the hypothesis of widespread decline.

Louis Porras (The Shed, Miami, Florida) agreed that the indigo snake needed some form of protection, but doubted whether listing it as Threatened reflected its biological status, at least in south Florida, and that such a listing would not prevent continued habitat destruction. He suggested that a new list be created to protect species from commercial exploitation and that the indigo snake be placed in this category. Mr. Porras also provided information on the habits and habitats of the eastern indigo snake in south Florida.

Dick Flood (Okefenokee Swamp Park) expressed his desire to see the indigo snake protected, but felt that information the Fish and Wildlife Service has received may be false, biased, and incomplete. He felt that more studies are necessary before a decision is made on the species' status so that it may be properly protected.

Sterling R. Williamson (Norfolk, Virginia) indicated that, in his opinion, placing this species on the List of Endangered and Threatened Wildlife and Plants would not offer the needed protection that this species may deserve. He feels that unless adequate measures are taken for public education and prevention of habitat destruction, adding it to another list would not be of any benefit.

J. D. Parrott (National Association for Sound Wildlife Programs) did not feel the species is Threatened because he feels that substitute habitat is available to compensate for past habitat destruction. This substitute habitat includes areas with Australian pine trees and orange groves. Dr. Parrott noted that indigo populations are declining in Georgia where no substitute habitat is available and that both Georgia and Florida protect this species. He stated that Federal protection will not insure protection since the species is already adequately protected by the States and that, in his opinion, the Lacy Act prohibitions are sufficient to regulate illegal traffic in these snakes. He also felt that such a listing would hamper research on this spe-

cies. On behalf of the Association, Dr. Parrott recommended the prohibition of sales of products produced from snakes collected in rattlesnake roundups. This he felt would help prevent the gassing of gopher tortoise burrows.

CONCLUSION

While the large majority of individuals who responded to the proposed rulemaking were in favor of the status proposed and agreed with those factors thought to be contributing to the decline of the species, a few individuals expressed doubts that a listing would protect the species. A Threatened status would protect the species from commercial exploitation by allowing protection throughout the historical range, not just in Georgia and Florida. As such, there would not be any doubt about whether existing laws protected a particular specimen in question; no longer could it be claimed that a specimen came from outside Georgia and Florida, a problem encountered with enforcement of the Lacy Act.

When considered throughout its range, the eastern indigo snake is Threatened. However, this does not imply that every local population within a geographical area is Threatened. As such, the Service recognizes that some populations of indigo snakes in South Florida are doing well. However, it would be best to consider this species as an entity because of continuous distribution. At this time, there is no evidence that Texas indigo snakes are either Threatened or Endangered. Should the Service receive such information in the future, the Service will act accordingly.

While it is true that no action by the Fish and Wildlife Service can forestall habitat destruction in all areas of the range, even if Critical Habitat was determined, the final action will make other prohibitions available to insure the survival of this species. Management programs can now be formulated and money from the Land and Water Conservation Fund would be available for habitat acquisition. By listing this species, the prohibitions of the Endangered Species Act of 1973 would be brought into force; this action is not simply adding this species to another "protected" list.

Before Critical Habitat can be determined, precise limits of the distribution of the main populations will have to be assembled. As such, more information will have to be obtained. However, there is more than enough reliable data to make an assessment as to the status of this species. The Service does not feel this information is false or biased.

Finally, the Service does not have the power to prohibit Rattlesnake Roundups in areas where the eastern

indigo snake occurs. Nor would prohibition of products of these roundups insure that they would no longer be conducted. The Service does not condone the wanton destruction of many forms of wildlife as a result of the gassing of dens and burrows, but does feel that this is a practice best left to the States to regulate.

After a thorough review and consideration of all the information available, the Director has determined that the eastern indigo snake is threatened with becoming Endangered throughout all or a significant portion of its range due to one or more of the factors described in section 4(a) of the Act. This review amplifies and substantiates the description of those factors and are described as follows:

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.*—The eastern indigo snake inhabits a region that is experiencing rapid development resulting in considerable loss of available habitat. A favorable characteristic of its habitat includes well drained soils which are ideal for human settlement, resulting in a serious decline in the populations of eastern indigo snakes in many areas.

2. *Overutilization for commercial, sporting, scientific, or educational purposes.*—The eastern indigo snake is in great demand by the pet trade with prime specimens selling for as much as \$200-\$250. The extremely docile nature of the snake and its large size make it highly desirable as a pet and, therefore, avidly sought by dealers. Commercial trade is probably the main cause for the decline of this species throughout its range.

3. *Disease or predation.*—Unknown.

4. *The inadequacy of existing regulatory mechanisms.*—The eastern indigo snake is strictly protected in Georgia, Florida, and Mississippi. However, these States cannot effectively control the trade in snakes once they leave the State. If a species is taken in violation of a State's law and moved illegally across a State line, such action becomes a violation of the Lacey Act. However, it has been a common practice to claim that the indigos in trade came from Alabama or South Carolina, where the snake has not been taken by experienced herpetologists in many years. This claim is virtually impossible to completely refute. Therefore, trade in illegally taken indigo snakes can continue in spite of strong State laws. There are no laws to protect the eastern indigo snake in Alabama or South Carolina.

5. *Other natural or manmade factors affecting its continued existence.*—In many areas in the Southeast, burrows of the gopher tortoise are gassed in order to drive out rattlesnakes which use the tortoise burrows. Indigo snakes also use gopher tortoise bur-

rows and recent research has indicated that eastern indigo snakes are harmed or killed by this practice.

EFFECT OF THE RULEMAKING

Section 7 of the Act provides:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal departments and agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of Endangered species and Threatened species listed pursuant to section 4 of the Act and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such Endangered species and Threatened species or result in the destruction or modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical.

The Director has prepared, in consultation with an ad hoc interagency committee, guidelines for Federal agencies for the application of section 7 of the Act. In addition, provisions for Interagency Cooperation were published on January 4, 1978 (43 FR 869-876), codified at 50 CFR 402.

Although no Critical Habitat has yet been determined for this species, the other provisions of section 7 are applicable.

Endangered species regulations already published in Title 50 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all Endangered and Threatened species. The regulations referred to above, which pertain to Endangered and Threatened species, are found at §§ 17.21 and 17.31 of Title 50 and are summarized below.

With respect to the eastern indigo snake in the United States, all prohibitions of section 9(a)(1) of the Act, as implemented by 50 CFR Part 17.21, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce this species. It also would be illegal to possess, sell, deliver, carry, transport, or ship any such

wildlife which was illegally taken. Certain exceptions would apply to agents of the Service and State conservation agencies.

Regulations published in the FEDERAL REGISTER of September 26, 1975 (40 FR 44412), codified in 50 CFR Part 17, provided for the issuance of permits to carry out otherwise prohibited activities involving Endangered or Threatened species under certain circumstances. Such permits involving Endangered species are available for scientific purposes or to enhance the propagation or survival of the species. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship which would be suffered if such relief were not available.

EFFECT INTERNATIONALLY

In addition to the protection provided by the Act, the Service will review the eastern indigo snake to determine whether it should be proposed to the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora for placement upon the appropriate Appendix(ices) to that Convention or whether it should be considered under other, appropriate international agreements.

NATIONAL ENVIRONMENTAL POLICY ACT

An environmental assessment has been prepared and is on file in the Service's Washington Office of Endangered Species. It addresses this action as it involves the eastern indigo snake. The assessment is the basis for a decision that this determination is not a major Federal action which would significantly affect the quality of the human environment within the meaning of section 102(2)(c) of the National Environmental Policy Act of 1969.

The primary author of this rule is Dr. C. Kenneth Dodd, Jr., Office of Endangered Species, 202-343-7814.

REGULATION PROMULGATION

Accordingly, § 17.11 of Part 17 of Chapter I of Title 50 of the U.S. Code of Federal Regulations is amended by adding the eastern indigo snake to the list, alphabetically under "Reptiles, as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

Species		Range		Status	When listed	Special rules
Common name	Scientific name	Population	Known distribution			
Reptiles: Snake, eastern indigo.	<i>Drymarchon corais couperi</i> .	NA.....	U.S.A. (Florida, Georgia, Mississippi, South Carolina, Alabama).	Entire...	T.....	32 NA.

Note.—The Service has determined that this document does not contain a major action requiring preparation of an Economic Impact Statement under Executive Order 11949 and OMB Circular A-107.

Dated: January 24, 1978.

LYNN A. GREENWALT,
Director,
Fish and Wildlife Service.

[FR Doc. 78-2586 Filed 1-30-78; 8:45 am]
