

CLASSIFICATION AND POPULATION STATUS OF THE AMERICAN ALLIGATOR

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The U. S. Fish and Wildlife Service places the alligator (Alligator mississippiensis) in three basic classifications; that is, endangered, threatened, and threatened S/A throughout its range in the Southeast United States. These categories simply designate status of the animal in relation to its recovery or rate of recovery. Generally, the endangered status would indicate low populations, whereas, the threatened status indicates an increasing population no longer in danger of extinction, and the threatened S/A indicates a recovered population. Other important factors are also considered in making these determinations; such as, habitat evaluations along with state research, management, and enforcement programs. Today, alligators in 28% of the U. S. range are classified as threatened, 69% as endangered, and 3% as recovered (Table 1).

Since the IUCN meeting in Madras, India, February 3-13, 1978, the U. S. Fish and Wildlife Service reclassified the biological status of the alligator only in portions of Louisiana. As a result of reclassification, 9 additional coastal parishes were classified as threatened S/A. Presently, 12 parishes in Louisiana are classified as threatened S/A.

All of the 64 counties in Florida were delisted from endangered to threatened status, allowing a limited experimental harvest beginning in 1977.

Three Louisiana parishes were delisted to threatened S/A in 1974. All or part of 27 parishes were delisted from endangered to threatened in 1977, with 9 of these parishes being further delisted to threatened S/A in 1978. Thirty-three parishes retained endangered status. Texas delisted 14 of 74 counties reporting alligator populations. Five counties in South Carolina were delisted to threatened while 23 remained classified as endangered. Alligators in 21 Georgia counties were delisted to the threatened status; 74 counties retained their endangered status. All of Mississippi, Alabama, and North Carolina are considered endangered under the present classification system of the U. S. Fish and Wildlife Service (Joanen and McNease 1978).

At the CITES meeting held in Costa Rica in March of 1979, members of the U. S. delegation submitted a proposal to delist the alligator from Appendix I to Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. This proposal was unanimously passed, thus allowing international trafficking in legally taken alligator skins. The U. S. Management Authority along with the Scientific Authority implemented the regulations and requirements governing shipment of skins.

Current Population Status by State

Ten states reported having alligators present in all or parts of their state. In general, alligator populations are increasing throughout the range. Areas on the fringes of the range generally have stable populations and can not biologically harbor high densities characteristic of gulf coast states.

Louisiana. The coastal marsh population, where nest count indexes were used to calculate population levels, increased approximately 70% from 1977-1980. Nest count data indicates an annual increment of approximately 15% since initiation of the surveys in 1970. In areas of the state where the nest count method is not feasible, standardized night count transect lines were conducted. Louisiana personnel survey 36 different areas of the state, covering a total distance of some 327 miles. Alligators per mile averaged 3.14 for the 36 transects (Chabreck 1980).

Florida. Population increases are occurring throughout Florida (T. Hines personal communication 1980). One inland lake surveyed by the nest count method increased from 45 nests in 1978 to 90 nests in 1979. Summarization of night count data by year demonstrated an average of 5.0 alligators per mile in 1974, 4.6 per mile in 1975, 6.3 per mile in 1976, 9.4 per mile in 1977, 6.8 per mile in 1978, and 7.4 per mile in 1979.

Georgia. A 1980 alligator population survey indicated population increases are occurring in most of Georgia. An analysis of population trends by counties showed that 72 were increasing, and 36 were stable. The statewide population was estimated at approximately 95,000 over a 108 county area, with a 15% increase as compared to the 1977 survey (R. Odom personal communication 1980).

Texas. The 1980 statewide population was estimated at 68,692 a 25% increase since 1977. Forty-eight counties were listed as having increasing populations, 21 showed stable trends, 4 were

decreasing and 23 undetermined. Alligator habitat was estimated at 5,735 square miles in 1977-78. The statewide average density was estimated as 11.79 alligators per square mile. Seven night count surveys covering some 27 miles averaged 4.5 alligators per mile in Texas (B. Brownlee personal communication 1980).

Alabama. No current population estimates are available for Alabama. However, the 1978 night counts conducted in Mobile and Baldwin Counties indicate a 17% increase as compared to the 1977 surveys. Four routes from 20 to 35 miles in length were run in the two county area. In 1978, 1,039 alligators were observed compared to 891 for the same routes in 1977 (J. Keeler personal communication 1980).

Arkansas. Alligator range is limited in Arkansas. The trend in Arkansas's alligator population since 1977 is considered stable to slightly increasing. Since 1972, the state restocked 2,000 alligators from Louisiana in 34 counties lying within the species historic range. Today, 37 counties possess alligators to some degree (S. Barkley personal communication 1980).

South Carolina. Of 28 counties containing alligators in South Carolina, 7 reported increasing populations. Increases were estimated as much as 25%. Nine counties reported stable populations and the status of 12 counties were unknown (T. Murphy personal communication 1980).

North Carolina. Alligator populations in 23 North Carolina counties were reported as stable to slightly increasing. The largest concentrations of alligators are located in Brunswick County in the southern part of the state (P. Smithson personal

communication 1980). North Carolina based this information on several sources:

1. Questionnaire returns from coastal plain hunters and fishermen.
2. Questionnaire returns from N. C. Wildlife Resources Commission field personnel and other natural resources field workers.
3. A computerized file of alligator sightings maintained by the N. C. Natural Heritage Program.
4. Night cruise-count surveys conducted by members of North Carolina State research team during 1979 and 1980.
5. Intensive field work on one study area from 1977 to 1980 and on a second study area from 1979 to 1980.

Mississippi and Oklahoma: No current population estimates are available for these states. Mississippi's night count data for 44.5 miles of survey lines indicated an average of 1.0 alligators per mile (Chabreck 1980). Oklahoma reports alligators occurring in only McCurtain County. This small population is characterized as stable (F. James personal communication 1980).

Literature Cited

- Chabreck, R. H. 1980. Cooperative surveys of the American alligator in southeastern United States during 1979. Louisiana State Univ., Baton Rouge. 3 pp. Mimeograph.
- Joanen, T., and L. McNease. 1978. Population and classification status of the American alligator. I.U.C.N., Survival Service Commission, Crocodile Specialist Group. (In press).

TABLE 1. Alligator Classification Status by State - July 1, 1980

	Number of Counties			Total
	Threatened S/A	Endangered	Threatened	
Mississippi		55		55
Alabama		33		33
North Carolina		21		21
Texas		60	14	74
Arkansas		3		3
Oklahoma		1		1
Georgia		74	21	95
Louisiana	12	33	18	63
Florida			64	64
South Carolina		23	5	28
TOTAL	12	303	122	437
Percent	2.8	69.3	27.9	