

# DISTRIBUTION, RELATIVE ABUNDANCE AND MANAGEMENT NEEDS OF FERAL HOGS IN FLORIDA<sup>1</sup>

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## ABSTRACT

*One hundred and fifty-eight questionnaires were mailed to Florida Game and Fresh Water Fish Commission wildlife officers, wildlife biologists and managers, and private and federal foresters in June 1975. The questionnaire asked for information on the distribution, relative abundance, and trends in feral hog (*Sus scrofa*) populations from 1965 to 1975 in Florida. Results from the 117 respondents indicated that feral hogs were present in 66 of the 67 counties, that the densest populations are in large, heavily forested tracts, and that populations have decreased or remained approximately stable during the past ten years.*

Feral Hogs have thrived in Florida since their introduction by Spanish explorers over 400 years ago (Lewis 1907) and have been for some time an important game animal in the state. A routine harvest mail survey has shown that the harvest exceeded that of white-tailed deer in two recent years (Table 1). In spite of this importance in Florida, no significant study of the animal has been undertaken.

## METHODS

One hundred and fifty-eight questionnaires concerning hog distribution and relative abundance were mailed in June 1975 to Game and Fresh Water Fish Commission wildlife officers, wildlife biologists and managers, and private and federal foresters in connection with a research planning study. Respondents were asked to mark on a Florida county map the areas where they knew wild hogs were present and to indicate low, medium, or high population levels (for purposes of the questionnaire, all free-ranging hogs, including those claimed as personal property were considered to be wild hogs). Questions were also asked about trends in hog populations over the past ten years, short range trends over the past two years, and the causes of these trends. A summary of the results from the 117 (74 percent) who responded with usable information is presented. At least one response was received from each of Florida's 67 counties.

Because we did not define density classes in the questionnaire, opinions about relative abundance were difficult to classify. Responses of different individuals reporting on the same areas were compared, and in some cases, it was necessary to make a compromise. Changes were also made when a respondent indicated that feral hogs were present over an entire county when, in actuality, the county contains large developed or urbanized areas where hogs are definitely absent.

## RESULTS AND DISCUSSION

### *Distribution and Relative Abundance*

Wild hogs were reported in portions of 66 of the 67 counties (Fig. 1) but not in urbanized or intensively farmed areas. Areas without wild hogs due to urbanization are portions of Dade, Broward, Palm Beach, Pinellas, Hillsborough, Manatee, Pasco, and Duval Counties. The areas in which hogs were not reported present due to development, agriculture, and other land use changes include parts of Polk, Orange, Lake, Marion, Hernando, Citrus, Alachua, Martin, St. Lucie, Indian River, Brevard, Volusia, Charlotte, and Lee Counties.

Areas in Fig. 1 which are shown as having relatively low populations of feral hogs are areas of undisturbed but marginal habitat (due to a lack of diversity). Some of these areas contain good habitat in small strips such as river swamps surrounded by land devoid of suitable habitat for wild hogs. The eastern part of the Everglades is an example of

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Table 1. Harvest figures for white-tailed deer and wild hogs during the period 1966-1975 as determined by the annual mail survey of hunters.

Species	Years								
	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Deer	33,800	43,900	— <sup>a</sup>	41,900	48,624	48,900	58,500	57,122	54,102
Hog	22,600	33,600	— <sup>a</sup>	28,500	36,034	38,700	60,900	84,128	36,232

<sup>a</sup>Survey not conducted

marginal habitat. Most of the other areas with low hog populations are on the fringe of highly developed regions.

The medium population levels shown in and around Collier County and northern Palm Beach County were reported to be maintained by frequent stocking by private hunting clubs and the Game and Fresh Water Fish Commission. In our opinion, due to heavy hunting pressures and marginal quality habitat, it is not likely that these areas will ever have high populations. The largest areas of medium population levels around Lake Okeechobee northward to Orange County are mainly on large cattle ranches with large tracts of "semi-improved" pasture. The areas of medium population levels in northern Florida are mainly areas where the practice of raising hogs on the open range is common. Hogs are often hunted and trapped on claims year round, but the owners are careful not to overharvest and rigorously guard against poaching.

The areas shown in Fig. 1 as having high hog populations are generally large, forested tracts with dense understories which provide ample escape cover. These areas are usually managed for timber or pulpwood production. The large area shown as having relatively high hog populations in Levy, Dixie, Lafayette, and Taylor Counties is dominated by slash pine flatwoods and coastal salt marsh. The slash pine flatwoods type is interspersed with cypress swamps, hydric oak hammocks, and bayheads. In other parts of the state the relatively high feral hog populations are on protected private lands, state parks, wildlife management areas, and national refuges.

#### Trends

Fifty-eight percent of the respondents believed that wild hog populations had decreased in the past ten years, 23 percent believed that they had remained stationary and 19 percent reported an increase. Forty-one percent indicated that there had been no change in hog populations in the past two years, 41 percent a downward trend, and 18 percent reported an upward trend.

Most respondents gave more than one reason for changes in hog populations. Reasons given for decreases were increased hunting and trapping pressure (59 percent), habitat loss due to urban development (21 percent), hunting with dogs (14 percent), and clearing for agriculture (4 percent). Other less frequently given reasons for decreases were "inadequate" hunting regulations, elimination because hogs were damaging crops (including commercial forests), hog cholera control programs, disease, and wildfires.

Respondents reporting population increases credited better protection resulting from the "new" trespass laws (47 percent), restocking (43 percent), and private hog claims (5 percent). Other reasons given were closing certain areas to hunting with dogs and favorable weather.

#### Management

Management of wild hogs as game animals by the Florida Game and Fresh Water Fish Commission has consisted primarily of relocating hogs from areas where they have become a nuisance, mostly state parks, to public hunting areas. Several hundred hogs have been relocated annually through trapping operations. Release sites are sometimes determined more by distance, available time, and manpower than a real need for more hogs. Experience has shown that where the release area is mainly unsuitable habitat, hogs released within a few days of hunting season will widely disperse and not be available to

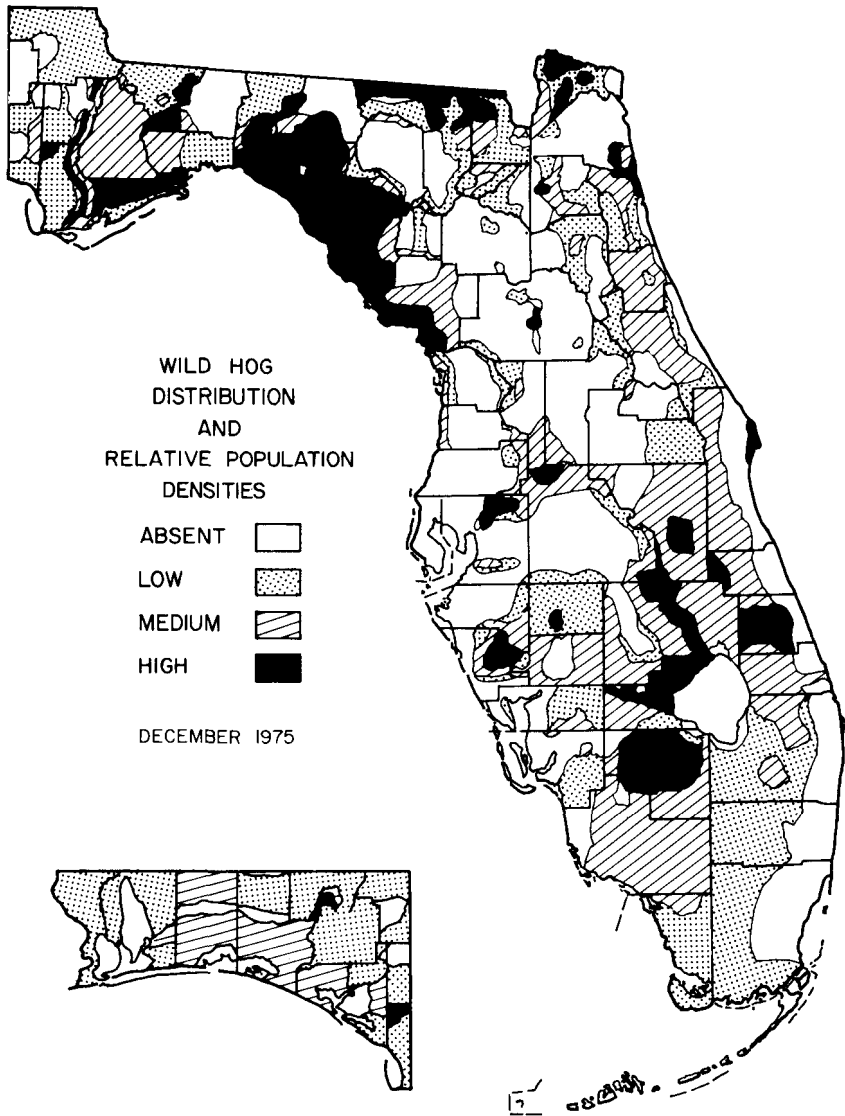


Figure 1. Wild hog distribution and relative abundance in Florida, June 1975.

hunters (Larry Campbell, Florida Game & Fresh Water Fish Comm., personal communication). The Department of Natural Resources, Division of Recreation and Parks, considers hogs to be "undesirable" exotics. Therefore, it may be necessary to trap and relocate large numbers of hogs from state parks as long as this philosophy prevails.

Under present hunting regulations, wild hogs may be taken only during the open deer season. Either sex is legal, but hogs less than 15 inches (38.1 cm.) high at the shoulder are protected. The bag limit is one per day and two per season. Dogs may be used except on a few wildlife management areas. At present, wild hogs in Alachua County, Palm Beach County, and portions of Levy, Collier, Dade, and Monroe Counties; Highland Hammock, Hillsborough, and Myakka River State Parks; Fisheating Creek Wildlife Management Area; Glades County Hunting Club Management Area; and certain other state wildlife management areas are classified as game animals.

Wild hogs in other parts of the state are not legally classified as game animals, and in certain parts of the state, particularly in parts of Dixie, Baker, Columbia, and Wakulla Counties, "hog claims" are still prevalent. A hog claim is an individual's claim to ownership of all unfenced hogs on a particular parcel of land. At one time, hogs were earmarked to show ownership, but this practice is no longer common. In the past, hog claims have been upheld by county courts, but the State of Florida, Office of the Attorney General, recently gave the opinion that hogs not under fence and running wild are game animals, and are therefore subject to the jurisdiction of the Game and Fresh Water Fish Commission (letter to Dr. O. E. Frye, Director, Game and Fresh Water Fish Commission, dated 4 March 1974).

Hog claims are managed primarily to provide hogs for family use or for sale. Under this system, adult sows are left for breeding stock and males are trapped (usually in late winter or spring), castrated, and released. In the fall, with a good mast crop, the hogs are in better condition and are hunted or trapped. Some hog claim owners sell boars to hunting preserves in northern states or charge clients for hog hunting privileges on their claim.

Many respondents to the hog questionnaire added comments suggesting changes to be made in the present hog management system. These comments included restricting the use of dogs for hunting (25 percent), stricter regulations with more effective enforcement (19 percent), and revoking all hog claims and classifying all free-ranging hogs as game animals (17 percent). Fourteen percent believed that habitat protection was important, 11 percent felt that more stocking was needed, and 8 percent stated that hog claims maintained hog populations because of better control of the harvest. Five percent of the respondents thought there should be more research on wild hogs, and two foresters wanted wild hogs removed from game animal status and eliminated because of damage to forestry operations and competition with other wildlife.

#### *Recommendations*

Due to a general lack of knowledge about feral hogs in Florida, it is not appropriate to recommend changes in the current management or regulation systems. Judging from the results of the questionnaire survey, however, the immediate needs of a feral hog program in Florida appear to be to classify all free ranging hogs as game animals and to effectively control hunting. Research is needed to evaluate different hunting regulations in the light of controlling hunting pressure with the goal of maintaining a sustained yield of wild hogs near carrying capacity.

Relocation of feral hogs from state parks and other areas where they are unwanted will probably continue in the immediate future. Research is needed on methods of evaluating hog habitat to be used for restocking as well as studies on hog behavior in different habitat types after relocation. A good census technique needs to be developed in conjunction with the habitat evaluating methods.

#### LITERATURE CITED

- Lewis, T. H. 1907. Spanish explorers in the southern United States 1528-1543. Charles Scribner's Sons, New York. 411 p