

FLORIDA SCRUB CATTLE:
THEIR HISTORY AND PLANS FOR THEIR PRESERVATION

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SUMMARY

Florida Scrub Cattle are cattle of primarily Iberian origin that were developed largely through natural selection in Florida. They once composed the entire cattle population of Florida but now have been reduced to a population of approximately 340 breeding age animals. Efforts are being made to preserve the small surviving population of Florida Scrub Cattle at four locations owned by the state of Florida and in several privately owned herds. The current animals descend from four geographically diverse sources maintained separately until recent years.

INTRODUCTION

The Florida Scrub Cattle (FSC) which are sometimes referred to as Florida Native or Florida Cracker Cattle are the Florida equivalent of the Texas Longhorn. Both types descend from cattle imported by the Spaniards and developed largely through natural selection. Some breeding from cattle of northern European origin, the so-called "native" American cattle, was also likely introduced into each of the populations. The first Spanish cattle were introduced into Florida in 1565 and increased to large numbers during the 1700's (Rouse, 1977). Prior to about 1900 there was little introduction of cattle of non-Spanish origin. Shorthorn and Jersey cattle were introduced first, followed quickly by Hereford, Angus and other dairy breeds. All of these breeds were likely crossed with Florida Scrub Cattle but the real deathblow to FSC as a predominant type was dealt by Brahman and part Brahman bulls which began to be introduced into Florida cowherds in the 1930's. The cross of the Brahman and FSC produced an extremely hardy animal larger than the FSC and as a result the breeding of pure FSC cattle began to diminish. Substantial numbers of pure FSC animals existed until the 1950's. By the late 1960's very few FSC remained and most of these were being crossed with other breeds.

DESCRIPTION OF FLORIDA SCRUB CATTLE

The Florida Scrub Cattle were and are smaller than the related Texas Longhorn cattle with cows weighing from 650 to 1000 pounds in good condition and bulls being proportionally larger. The horns of FSC are smaller than those of the Texas Longhorns, with a tendency to turn upward rather than outward. The variation in coloration and white spotting patterns of the FSC is similar to that of the Texas Longhorn (Olson and Willham, 1982). The predominant colorations are red, black and dark brown to black with a tan muzzle ring and dorsal stripe. Calves of this last coloration are born reddish brown and develop the darker coloration between four to eight months of age. Also observed in smaller numbers, are the brindle and light red to yellow colorations. The white spotting patterns found in FSC include white park, color-sided, roan and recessive or Holstein-type patterns. The brockling gene interacts with these spotting patterns in most animals. The gene responsible for producing the Hereford pattern is also present in one of the existing herds of FSC.

The blood types of FSC were evaluated by Miller et al. (1985) and found to be similar to those of other cattle of Iberian origin, the Texas Longhorn, Mexican Sonoran Creole, Brazilian Caracu, and the Argentine Criollo, for most systems. The blood types also indicated some influence of Shorthorn breeding. This was not unexpected as some animals in the herd of FSC from which the blood samples were collected gave evidence of the presence of Shorthorn breeding in body type and spotting patterns.

POTENTIAL USES OF FLORIDA SCRUB CATTLE GERM PLASM

The justifications for the need to preserve the FSC are based on both historical and genetic grounds. The cattle industry of Florida was based for many years on FSC and the vast majority of the Florida commercial cowherd of today is the result of upgrading from FSC. Thus, an important part of Florida's past would be lost if FSC were to disappear. Also, the FSC along with the Texas Longhorn are the only surviving representatives of any of the "pioneer" cattle of the U.S., the so-called "native cattle" of the east and midwest now being extinct.

From a genetic standpoint the FSC have the ability to survive and reproduce under the often harsh conditions of Florida including internal and external parasites, high temperature, high humidity and low quality forage throughout much of the year. During the winter months, both the forage quantity and quality become less and the cattle are also subjected to sudden temperature fluctuations. After many years of largely natural selection under these conditions, these cattle should possess useful germ plasm for disease resistance and the ability to survive under harsh conditions. It has already been shown in Florida and areas of the tropics that criollo-type Spanish cattle produce excellent F₁ crosses with Zebu animals (Plasse, 1983). The FSC germ plasm could, thus, be potentially very useful in composite populations or as sources for gene transfer systems that may be feasible in the future.

DESCRIPTION OF THE SURVIVING POPULATION

The majority of the FSC are now located in three herds owned by the state of Florida. These three herds are located at the Withlacoochee State Forest, the Lake Kissimmee State Park and the Payne's Prairie State Preserve.

The surviving population of FSC descends primarily from three sources, the James Durrance herd of Basinger, FL, the Hal Chaires herd of Old Town, FL and the W. W. Tilton herd of East Palatka, FL. Upon Mr. Durrance's death in 1969 a portion of his herd was later transferred by his grandson, Mr. J. C. Bass, to the Florida Department of Agriculture in Tallahassee. Most of these cattle were transferred to the Withlacoochee State Forest near Brooksville in 1979 where the herd now numbers about 135 head. About 15 head remain in Tallahassee. Small numbers of aged FSC cows are still maintained by members of the Durrance family. These cows are at least 17 years of age at this time and are still in production.

The Lake Kissimmee State Park herd located near Lake Wales, FL descends from the Durrance cattle as well as cattle from the Hal Chaires herd in Dixie County. This latter herd is likely the source of a Shorthorn influence. Excess animals from the Lake Kissimmee State Park herd were used to establish the Payne's Prairie State Preserve herd near Gainesville, FL. The Payne's Prairie herd has also had an introduction of FSC from the W. W. Tilton herd. The Lake Kissimmee State Park and Payne's Prairie State Preserve herds now number about 45 and 200 head, respectively. Mr. Tilton still maintains a herd of about 25 FSC.

A fourth source of FSC was recently discovered to have been preserved by Mr. Okla Barnes of near Florala, AL. About 15 of Mr. Barnes cattle are now owned by Mr. Noah Oliver of Enterprise, AL, who is interested in helping to preserve the FSC.

Little data on weights, calving intervals, etc. has been collected to date due to a lack of adequate facilities and time by the people responsible for their maintenance. The emphasis has been placed on managing these cattle in a manner similar to that of the turn of the century. However, reproductive data maintained at the Florida Department of Agriculture and Withlacoochee State Forest herds indicate that when nutrition is adequate, over 90% of the FSC cows calve each year. Calving intervals of 11 months have been frequently observed in the Department of Agriculture herd. This is in spite of the possible effects of inbreeding in these two herds as to date they are entirely composed of cattle of Durrance origin.

PLANS FOR PRESERVATION OF FLORIDA SCRUB CATTLE

Selection pressure has been applied to the FSC herds in an effort to remove phenotypes, largely coloration, thought not to be characteristic of the historical FSC. Animals with physical evidence of Shorthorn and Brahman breeding were also removed. The Payne's Prairie herd should be quite heterozygous as cattle from three sources, Durrance, Chaires and Tilton, have been used in its development. In 1986 bulls will be transferred from the Paynes Prairie herd to the Lake Kissimmee State Park and Withlacoochee State Forest herds, with the goal of introducing heterozygosity in these herds. Two bull calves from the Oliver herd will be transferred to the Department of Agriculture herd and efforts will be made to obtain an unrelated bull to be used on the Oliver herd.

CONCLUSIONS

Even though only four sources of FSC are known to exist, they are widely separated geographically which should increase their genetic diversity. Maintenance of sufficient heterozygosity to ensure satisfactory reproduction should thus be possible through exchange of bulls between the existing herds.

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