

CONSERVATION OF TWO THREATENED SOUTH FLORIDA BUTTERFLIES AND THEIR HOST PLANTS (LEPIDOPTERA: LYCAENIDAE, NYMPHALIDAE)

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ABSTRACT.— *Anaea troglodyta floralis* and *Strymon acis bartrami* have been found in reduced numbers in recent years due to environmental causes and factors introduced by humans. Protection of the butterflies and proper management of their habitat will be essential for their preservation in the Florida Keys and on the South Florida mainland.

KEY WORDS: *Anaea*, butterfly conservation, Euphorbiaceae, Florida Keys, habitat conservation, Lycaenidae, Nymphalidae, *Papilio*, Papilionidae, *Strymon*.



Fig. 1-2. 1. *Anaea troglodyta floralis* at rest. 2. *Strymon acis bartrami* feeding on *Croton linearis*.

In addition to the well-known federally listed endangered Schaus Swallowtail butterfly (*Papilio aristodemus ponceanus* Schaus) in south Florida, there has been concern about the status of two other butterfly species that are found in the Florida Keys and south Florida mainland. Both the Florida Leafwing (*Anaea troglodyta floralis* Johnson and Comstock) (Fig. 1) and Bartram's Hairstreak (*Strymon acis bartrami* (Comstock and Huntington)) (Fig. 2) were listed in the previously published *Rare and Endangered Biota of Florida, Invertebrates* (Franz, 1982) as Species of Special Concern and as Threatened Species in the 2nd edition volume (Deyrup and Franz, 1995). In addition, these species were cited in 1989 as High-Priority Status species by Dale Schweitzer of the Nature Conservancy for listing as

Endangered Species. Sponsored by the U.S. Fish and Wildlife Service, a survey by the present authors between July 1994 and July 1995 indicated that these two butterfly species have continued to decline in numbers since the time of the last survey (Hennessey and Habeck, 1991). Presently, the butterflies are found only on Long Pine Key in Everglades National Park (Fig. 3) and on Big Pine Key in the Florida Keys (Fig. 4).

Both butterfly species occur in the open tropical pinelands of Everglades National Park (Fig. 5) and Big Pine Key of the Florida Keys (Fig. 6) where their larval hostplant, *Croton linearis* (Euphorbiaceae), is found (Fig. 7). Adult leafwings and adult hairstreaks prefer dense stands of the hostplant. *Croton* was not found in areas where the pinelands had grown very thick. Stands

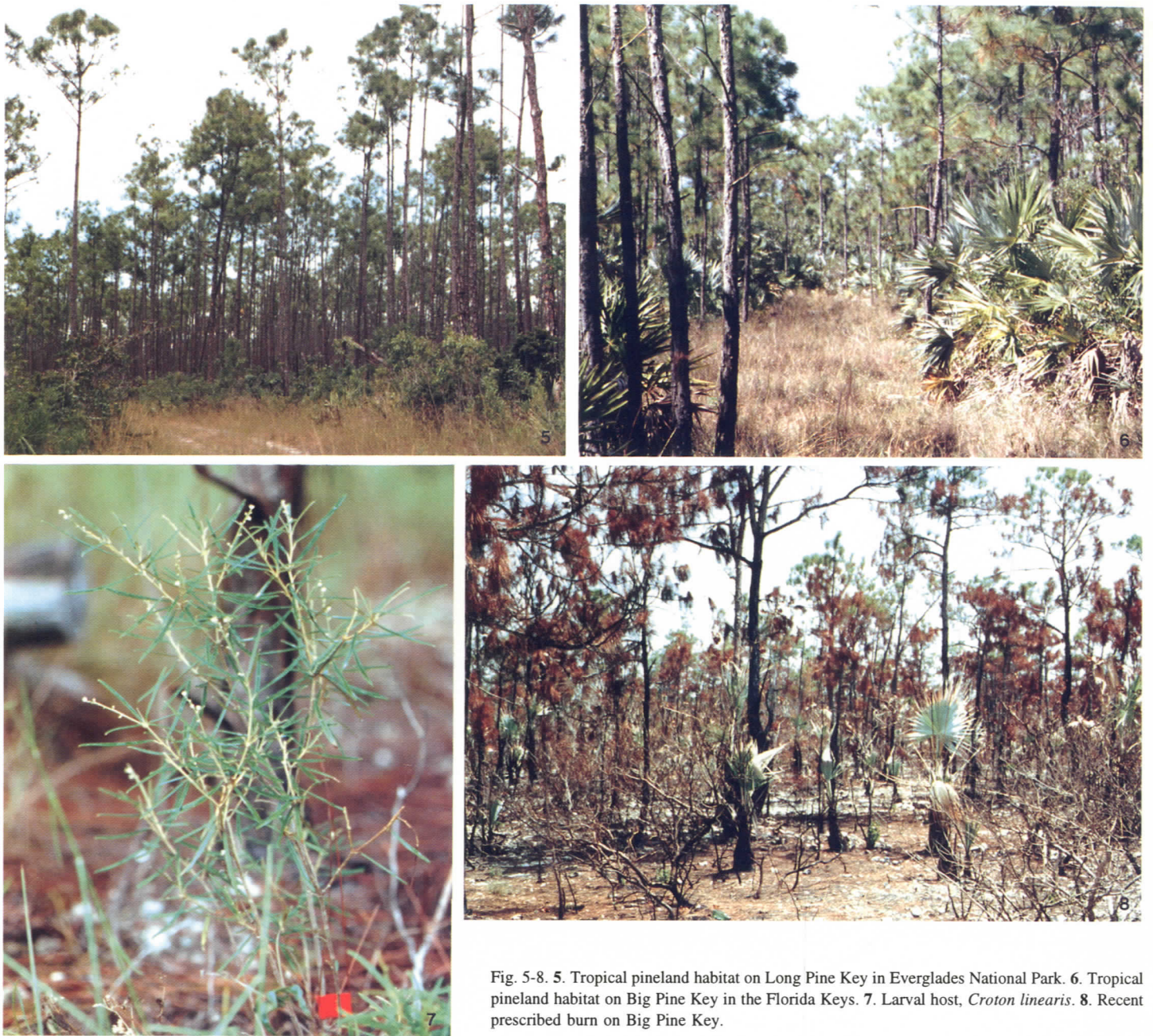


Fig. 5-8. 5. Tropical pineland habitat on Long Pine Key in Everglades National Park. 6. Tropical pineland habitat on Big Pine Key in the Florida Keys. 7. Larval host, *Croton linearis*. 8. Recent prescribed burn on Big Pine Key.