

student, and I have kept 5 species in large (1.2 × 1.8 × 2.4 m) cages in our offices at the University of Hawaii: Kauai Amakihi (*Loxops virens stejnegeri*), Hawaii Amakihi (*L. v. virens*), Anianiau (*L. parva*), Kauai Creeper (*L. maculata bairdi*), Nihoa Finch (*Psittirostra cantans ultima* [= *Telespyza ultima* of Banks and Laybourne, Condor 79:343–348, 1977]), and Apapane (*Himatione sanguinea*). All except the Nihoa Finches and 1 Apapane were hand-raised from the nestling stage.

We had little difficulty maintaining most of the species; the general diet used was discussed by Eddinger (Avic. Mag. 77:113–114, 1971) and by Berger (Hawaiian Birdlife, Univ. Press of Hawaii, Honolulu, Hawaii, 1972). The most critical period for hand-raised birds is during the first months of cage life; those that survive this period often live for many years.

*Loxops virens stejnegeri*.—Eddinger began to hand-raise 4 nestlings on 17 May 1969. One bird died on 1 November 1970 (age 18 months); 2 other birds died on 3 and 5 August 1971, at an age of 26½ months; the fourth bird lived until 8 May 1978 to an age of 9 years.

*Loxops v. virens*.—I obtained 2 nestlings on 22 January and 2 others on 31 January 1968. One, with a badly deformed leg, learned to stand on 1 leg. However, this bird was never able to fly, and it survived only 3.5 months. The other birds lived for periods of 43, 49 and 56 months.

*Loxops parva*.—Eddinger obtained 8 nestling Anianiau between 17 May and 23 June 1969. Six of these birds died at ages between 5.5 and 13 months (a veterinarian diagnosed the cause of death as either enteritis or visceral gout). The other 2 birds reached ages of 27 and 42 months, respectively.

Eddinger also took 3 nestling Anianiau on 23 June 1970. One bird died on 4 January 1974, at an age of 4.5 months; a second bird, on 1 August 1977, age 85.5 months. The third bird died on 15 Jan. 1980, age 114.75 months.

*Loxops maculata bairdi*.—Eddinger found the first nest of the Kauai Creeper with young on 26 April 1970. He collected the nest and 2 nestlings on 20 May. One of these birds died 13 days later, but the second bird lived until 4 July 1972, reaching an age of approximately 26.5 months.

*Psittirostra cantans ultima*.—John Sincock of the U.S. Fish and Wildlife Service mist-netted 14 Nihoa Finches for me in West Palm Canyon of Nihoa Island on 9 June 1969. These were delivered to me in Honolulu by Eugene Kridler on 11 June. All but 3 of the birds were in immature plumage at that time. My early experiences with these birds are described in Hawaiian Birdlife. Four birds died between 20 June and 15 December 1969. On 9 June 1970, I loaned Jack Throp, Director of the Honolulu Zoo, 2 male Nihoa Finches to place with his 3 remaining female Laysan Finches (*Psittirostra c. cantans*; see Throp, Elepaio 31:31–34, 1970). The 2 Nihoa Finches died on 19 July 1974 (age 61 months) and 17 March 1976 (age 81 months). The remaining 8 birds reached the following ages (in months): 18.5, 25, 25, 71.5, 72, 72.4, 94 and 112.

*Himatione sanguinea*.—This species proved to be more difficult to maintain in captivity. Eddinger hand-raised 6 nestlings; the longest living ones died at the ages of 16.5 and 19.5 months. However, a bird in adult plumage that was brought to me from the island of Hawaii is still alive 6 years later.—ANDREW J. BERGER, Dept. Zoology, Univ. Hawaii, Honolulu, Hawaii 96822. Accepted 1 Apr. 1979.

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**Interspecific nesting of Clay-colored and Field sparrows.**—Few records of interspecific breeding between Clay-colored Sparrows (*Spizella pallida*) and congeneric species are known. A hybrid Clay-colored Sparrow × Brewer's Sparrow (*Spizella breweri*) was re-

ported by Cockrum (Wilson Bull. 64:149, 1952) and Storer (Wilson Bull. 66:143–144, 1954) identified a hybrid Clay-colored Sparrow × Chipping Sparrow (*Spizella passerina*) collected by A. D. Tinker in Michigan, where several species of *Spizella* are regular breeders.

Between 1960 and 1975, mixed nesting pairs comprising Clay-colored Sparrows and either Field Sparrows (*Spizella pusilla*), or Chipping Sparrows, have been recorded 3 times in New York State, where the Clay-colored Sparrow has only recently begun to breed (Bull, The Birds of New York State, Doubleday, Garden City, New York, 1974). Two of the reports involve a nesting of a Chipping Sparrow and a Clay-colored Sparrow pair near Ithaca, Tompkins Co., in June 1960 (McIlroy, Kingbird 11:7–10, 1961) and a Clay-colored Sparrow mated to a Field Sparrow in June 1974 near Millbrook, Dutchess Co. (Finch and Smart, Kingbird 24:211, 1974; Bull, Supplement to Birds of New York State, Wilkin's/Printers, Cortland, New York, 1976).

The third instance mentioned above occurred in 1972 and involved a pair of Field Sparrows and a male Clay-colored Sparrow nesting at the edge of a 9.3-ha Scotch pine (*Pinus sylvestris*) plantation just southeast of Foster Lake, 4 km WSW of Alfred, Allegany Co. I was conducting a breeding bird census there for the fourth consecutive year (for a detailed description of the area see Brooks, Audubon Field Notes 23:743–744, 1969). There was 1 territorial male Clay-colored Sparrow in this plantation in the summers of 1970 and 1971 and there were 2 territorial males there in 1972. At the same time this area had 26 territorial male Chipping Sparrows in 1970, 15 in 1971 and 23 in 1972. There were 6 Field Sparrows in 1970, 7 in 1971 and 9 in 1972. A pair of Clay-colored Sparrows had nested successfully in 1971, and an unsuccessful nesting had occurred in June 1972.

The nest of the mixed trio, discovered by Dr. Harold Axtell on 5 July at 14:00 EDT, was 15 cm up in a clump of goldenrod (*Solidago* sp.) amidst young choke cherry (*Prunus virginiana*), about 1 m from a row of Scotch pine and spruce (*Picea* sp.). By 15:00 the first egg had hatched. On 6 July 3 eggs had hatched, while 1 (infertile) egg remained. The nest was studied for up to 3 h daily from 5 July until 15 July from a partly hidden vantage point nearby. On 15 July, 3 newly-fledged young were being fed by adults of both species in a nearby choke cherry. At this time we could discern no field marks suggesting that the young were anything but Field Sparrows.

The nesting clearly involved 2 adult Field Sparrows and a male Clay-colored Sparrow. The 2 birds doing most of the incubating, brooding and feeding of the young were 1 Field Sparrow (judged to be the female) and the male Clay-colored Sparrow. No evidence of agonistic behavior among the adult birds was ever seen. The male Clay-colored Sparrow, of apparent normal plumage, sang both the typical territorial song of a Clay-colored Sparrow and also a deep, buzzy—but seemingly otherwise typical—territorial song of a Chipping Sparrow. I was unable to capture any of the young for study of possible hybrid characteristics. No Clay-colored Sparrows have been found in this plantation in subsequent years of censusing. I wish to thank Harold Axtell, Lou Burton, Clarence Klingensmith and Gordon Ogden for their observations and assistance.—ELIZABETH W. BROOKS, 1435 Waterwells Road, Alfred Station, New York 14803. Accepted 15 June 1979.

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**Cory's Shearwater off the South Carolina coast.**—On 28 July 1973, my ornithology class and I observed 2 Cory's Shearwaters (*Puffinus diomedea*) on the Atlantic Ocean about 15 km east of Charleston, South Carolina. I collected 1 of the birds, which proved to be a female of the Mediterranean race (*P. d. diomedea*). It had an exposed culmen of 50 mm, a bill depth of 16 mm and a wing length (chord) of 343 mm with about 3 mm of the tip missing.