

GENERAL NOTES

An example of a hybrid Green Jay × Blue Jay.—While attempting to secure fledgling Blue Jays (*Cyanocitta cristata*) for use in a behavioral study, Dellinger learned that there was a hybrid between a Green Jay (*Cyanocorax yncas*) and a Blue Jay on exhibit at the Zoological Park in Fort Worth, Texas. She visited the park on 18 September 1977, and learned that the jay was over 12 years old at the time, having hatched on 17 June 1965.

The hybrid was the result of a mating between a male Green Jay and a female Blue Jay during the spring of 1965. The female, a locally hand-reared bird hatched in 1964, was obtained from a bird rehabilitator as a possible mate for the Green Jay. There was no record of where the male was obtained. The mating produced two clutches, the first of which failed. The second clutch comprised three eggs laid on 30, 31 May and 1 June; only one young hatched successfully. Soon after the young was taken from its parents and hand-reared. The hybrid was placed as a juvenile in an outdoor cage holding other jays.

The hybrid died on 28 January 1978, and was donated to the vertebrate collection at the University of Texas at Arlington (number UTA 730). Both skin and carcass were preserved. The specimen proved to be a male weighing 104 g, with little fat, having an enlarged left testis, yellowish-orange irides, and with bill and fleshy parts of the mouth black. The lower mandible showed a slight deformity. Measurements were as follows: total length 320 mm, wing 129 mm, tail length 141 mm, tarsus 35.5 mm, culmen 21 mm.

Unfortunately, no behavioral notes were kept on the hybrid from initial fledging in 1965 to 18 September 1977. Zoo personnel informed us that at times the hybrid was housed with Blue and Green jays. When Dellinger observed the bird in September 1977, it was with a Scrub Jay (*Aphelocoma coerulescens*) and eight other species. From late October 1977 until its death, the hybrid was housed with two hand-reared, first year Blue Jays, and may have been forming a pair bond with one, as food exchange was noted several times.

On 18 September and again on 20 October 1977, Dellinger heard the hybrid give a call much like that of a typical Blue Jay. It responded to wild Blue Jays outside by flying to the side of the cage, clinging to the wire and calling *jay*. The hybrid also sang quietly on 20 October, a behavior of frequent occurrence according to zoo personnel.

Fig. 1 shows the morphological features of the hybrid. Blue, typical of Blue Jays, was dominant; Green Jay colors were generally absent. The forehead and crown were primarily white with blue tips and edges; feathers obscuring the nares were blue with black tips; the lores and auriculars were black; and the malar region was blue with black in the adjoining areas. Small patches of blue were present above and below the eyes, but feathers immediately in front of and behind the eyes were black. The chin and throat were black mottled with blue. The upper breast was also black and separated from the white belly by a transition area of blackish-blue. The sides of the breast were bluish-gray. The undertail coverts, femorals and crurals were white, the back and uppertail coverts blue. The nape was blue mixed with white and closely resembled that of a Blue Jay. The alulae and primaries were blue. The blue secondaries and tertiaries were broadly tipped with white; the upper primary coverts were all blue and the upper secondary coverts were blue, tipped with white. The upper, middle and lesser wing coverts were also blue with the marginals showing some white on the inner webs. Faint barring was apparent on the largest alular feathers, some secondaries, tertiaries and the upper greater secondary coverts. The underwing coverts were mostly white. The two central rectrices were blue; those adjoining were blue, tipped with white; and those outermost were mainly white. The barring of the tail, so characteristic of a true Blue Jay, showed only faintly.

Previous records of hybridization among jays in the wild include that of a White-tipped



FIG. 1. Captive hybrid Green Jay \times Blue Jay.

Brown Jay (*Psilorhinus morio*) \times Magpie Jay (*Calocitta formosa*) from western Chiapas, Mexico (Pitelka et al., *Condor* 58:98–106, 1956), and a Blue Jay \times Steller's Jay (*Cyanocitta stelleri*) from Boulder, Boulder Co., Colorado (Williams and Wheat, *Wilson Bull.* 83:343–346, 1971).

Hardy and Raitt (abstract, *Proc. 16th Int. Ornithol. Congr.* 105, 1974) reported successful captive hybridization between a Yucatan Jay (*Cissilopha yucatanica*) and a San Blas Jay (*C. sanblasiana*), but, unfortunately, the young died at 24 days. In 1973, a Beechey's Jay (Purplish-backed Jay [*C. beecheii*]) was crossed with a Magpie Jay at the Arizona-Sonora Desert Museum in Tucson, Arizona, where, according to Gale Monson (pers. comm.), the hybrid is still alive and on display. He also stated that as an adult it shows more characteristics of the Beechey's Jay than of the Magpie Jay. It has the dark eyes of the latter, rather than the yellow eyes of the adult Beechey's Jay.

The possibility of the Green Jay and the Blue Jay occurring naturally together during the breeding season is remote, so that hybrids are not to be expected in the wild. In Texas, the Green Jay occurs locally throughout the Rio Grande Valley to Laredo, Webb Co., and to Falfurrias, Brooks Co., and occasionally north to Alice, Jim Wells Co., and sporadically north to San Antonio, Bexar Co. In winter, the Blue Jay is found as a straggler on Edwards Plateau just north of San Antonio and rarely in the Rio Grande Valley.

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Dusky Seaside Sparrow feeds Red-winged Blackbird fledglings.—The endangered Dusky Seaside Sparrow (*Ammospiza maritima nigrescens*), restricted to small tracts of salt and brackish marsh near Titusville, Brevard Co., Florida, is rapidly nearing extinction. While censusing the population on St. Johns National Wildlife Refuge on 9 August 1976, we noted an unmated, color-banded male sparrow had abandoned a territory defended since 10 June to feed two recently fledged Red-winged Blackbirds (*Agelaius phoeniceus*) about 50 m away. The mother of the brood was completely tolerant of the sparrow's activity, despite the sparrow's strenuous efforts to keep her away. Both birds fed the young until 12 August. Among 13 food items brought by the sparrow were five grasshoppers and three spiders (cf. Howell, *Florida Bird Life*, Coward-McCann, New York, New York, 1932). Based on 736 min of observation during these 4 days, foraging accounted for 36% of the sparrow's activity, food delivery for 17%, singing for 18% and aggression toward the female red-wing for 8%; the remaining time was spent on perch or in unknown activity. Mean duration of the red-wing's foraging absences was longer than the sparrow's (8 min vs 14 min, $t = 2.40$, $df = 36$, $P < 0.05$, $N = 22$ and 16, respectively), and she spent a greater proportion of her time foraging (75%).

Most instances of interspecific helping have involved adults actively or recently engaged in reproduction (Skutch, *Condor* 63:198–226, 1961). While the color-banded sparrow was seen with a female and young in 1973 and presumably had ample additional breeding experience, we are convinced, based on 5 months of observation, that he was unmated and had neither nest nor young in 1976. Factors which may have contributed to his abnormal behavior are unclear. Between 1970 and 1976, wildfires reduced the population of Dusky Seaside Sparrows on St. Johns NWR from 110 to 12 (11 ♂♂, 1 ♀). During spring 1976, local variation in the rate of vegetative recovery, coupled with rapid flooding due to heavy rains, resulted in considerable shifting of sparrow territories. Prior to feeding the red-wings the sparrow was occupying his second territory of the year, the first (occupied 4 May–7 June) having been flooded. We believe that the low level of the population, the shortage of females and perhaps the instability of sparrow territories may have acted individually or in concert to prompt this male's unusual behavior.

These data were collected while JLR was conducting research for an M.S. degree at the University of Georgia. Support for this study was provided by the U.S. Fish and Wildlife Service.—JAMES L. RAKESTRAW, *School of Forest Resources, Univ. Georgia, Athens, Georgia 30602* AND JAMES L. BAKER, *Merritt Island National Wildlife Refuge, Titusville, Florida 32780*. (Present addresses: JLR: *Museum of Natural History, Univ. Kansas, Lawrence, Kansas 66045* AND JLB: *Jacksonville Area Office, U.S. Fish and Wildlife Service, 15 N. Laura St., Jacksonville, Florida 32202*.) *Accepted 24 June 1980.*