

The nestling hawk was removed from the nest and taken to the Small Animal Veterinary Clinic at Michigan State University. There it was temporarily cared for and then placed into a local Red-tailed Hawk nest.

The presence of a nestling hawk in a Bald Eagle nest is unexplained, but at least two possible scenarios may apply. One possibility is brood parasitism by the parent hawks. Although brood parasitism has been documented in five avian families: Anatidae, Cuculidae, Indicatoridae, Icteridae, and Ploceidae, (J.C. Welty, 1975, *The Life of Birds*, W.B. Saunders Co., New York) it has never been recorded in the family Accipitridae.

For brood parasitism to have occurred, a female Red-tailed Hawk had to enter the eagle nest, contend with an adult Bald Eagle with newly hatched nestlings, and lay its egg. The egg then had to be incubated for approximately 30 days (F.L. Beeby, 1976, *Hawks, Falcons and Falconry*, Hancock Home Publisher, Ltd., New York) by either the adult eagles, the nestlings or both. This scenario is unlikely.

A second explanation is non-lethal predation followed by parental care. One of the adult eagles may have captured the nestling hawk and failed to kill it during capture and transport. The nestling hawk had a full crop when we discovered it, suggesting that either the adult eagles had fed it, or that it had recently been transported to the nest and still had a full crop from its natural parents. Corroborating this is the presence of other raptor species in an analysis of Bald Eagle prey items collected at nests in the midwest (K.D. Kozié and R.K. Anderson, 1991, *Archives of Environmental Contaminants and Toxicology* 20:41-48; W.W. Bowerman IV and J.P. Geisy, Jr., 1991, *Ecology of Bald Eagles on the Au Sable, Manistee, and Muskegon Rivers*, Michigan State University, East Lansing, MI). We believe that this scenario is a more likely explanation than brood parasitism.

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#### TALON GRAPPLING BY APLOMADO FALCONS AND BY GOLDEN EAGLES

On 31 January 1979, while observing raptors of seven species along a fire line in central Venezuela, I saw various chasing and stooping interactions between some of the five Aplomado Falcons (*Falco femoralis*) present. One of these stoops I fortuitously photographed. A juvenile (by plumage) female (by size) made a long, shallow stoop on an adult (by plumage) male (by size) perched about 20 m above the ground in the upper canopy of a tree. The defensive response of the male was so quick that the episode was little more than a blur to the unaided eye. Fortunately, the camera (Fig. 1) captured the critical detail. From the photograph and knowledge of the birds' positions just before and after the incident, it was clear that the male sprang into the air, thrust his feet upward, grasped the female's foot, and, impelled by the female's momentum, whirled at least half a revolution before the birds separated. This may be the first published account of grappling and whirling for the Aplomado Falcon. It provides detail on the mode of contact of the birds during the bout, something that is seldom determinable for any species.

The second observation is an extreme example of grappling and whirling for the Golden Eagle (*Aquila chrysaetos*). Grappling is common for some eagles (L. Brown and D. Amadon, 1968, *Eagles, Hawks and Falcons of the World*, McGraw-Hill Book Co., New York), but rare for the golden (D.H. Ellis, 1979, *Wildlife Monographs* No. 70; A.R. Harmata, 1982, *Raptor Research* 16:103-109). On 18 March 1985, I observed three adult Golden Eagles flying along an elevated cliff rim in southeastern Arizona. The largest bird (presumably a female) was attended by two smaller birds (presumably males) that emphatically stooped at one another. I observed this combat from 1317-1323 H when the two males bound together and whirled at least 19 revolutions before disappearing from view beneath the forest canopy. I estimated that the two fell at least 100 m during the bout, but could not determine whether the eagles actually collided with the ground. The female swooped twice above the combatants on the ground, then drifted away from the



Figure 1. Aplomado Falcons grappling and whirling. Adult male (above) was perched in treetop when juvenile female stooped from left.

area. After 11 min, first one male, and then the second, flew from the touch down zone and rejoined the female. The trio then drifted north out of sight with the males again stooping at each other. A Red-tailed Hawk (*Buteo jamaicensis*) was present, soaring above and occasionally stooping at the trio, during almost the entire episode. This may be the most extended grappling and whirling bout ever reported, at least for the Golden Eagle.—**David H. Ellis, U.S. Fish and Wildlife Service, Patuxent Wildlife Research Center, Laurel, MD 20708.**

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#### A PREVIOUSLY UNDESCRIBED FALCON FLIGHT DISPLAY

It is something of a surprise for a social display to suddenly be discovered in a supposedly well-studied species. An example is the recent description of the Bowing display for the Cooper's Hawk (*Accipiter cooperii*) (R.N. Rosenfield and J. Bielefeldt, 1991, *Condor* 93:191–193). The Prairie Falcon (*Falco mexicanus*) and Peregrine Falcon (*Falco peregrinus*) have also received great attention during the last three decades, yet I am unaware of any published account of a "deep-flap" display I will next describe.

In 1981, at three different cliffs, all in Arizona, I observed a flight display that was distinctly different from normal flapping flight. On 11 February at 1607 H, at a site on the Tohono O'odham Indian Reservation, an adult Prairie Falcon (probably a male by size comparison with the other falcon attending the cliff) stooped upon and flushed a Red-