

whereas breeding eagles rarely entered the WRA (Hunt et al. 1999, Report to the National Renewable Energy Laboratory, XAT-5-15174-01, XAT-6-16459-01, Predatory Bird Research Group, University of California, Santa Cruz, CA U.S.A.). However, a review of different sources of avian collision mortality in the United States indicated that death associated with wind plants is much lower than other sources of collision mortality (Erickson et al. 2001, National Wind Coordinating Committee, Washington, DC U.S.A.). The high levels of raptor mortality at Altamont were explained by large raptor populations, a high prey base for raptors, and the large size of the wind plant. A study performed in the Campo de Gibraltar region in Spain, a major passway of bird migration to Africa, also demonstrated the severe impact of a wind farm on large birds (Montes and Jaque 1995, Summary of final report, Soc. Espan Ornitol.). Of 82 birds found after collisions with wind generators, five raptors were affected, of which the Griffon Vulture (*Gyps fulvus*) was most common (43 collisions).

In contrast to the wind power facility in California, the wind power plants in Mecklenburg-Western Pomerania are much smaller, but this is an important area for migrating and wintering White-tailed Sea Eagles in the Baltic Sea region. Systematic studies on wind turbines to examine their full range effects on behavior, reproductive success, and mortality of raptors are strongly needed for Germany, as there are plans to enlarge the total energy generated by wind in Germany in the near future.

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#### TALON-LOCKING IN THE RED-TAILED HAWK

Talon-locking by two Red-tailed Hawks (*Buteo jamaicensis*) in flight is widely accepted (e.g., Ferguson-Lees and Christie 2001, *Raptors of the world*, Houghton Mifflin, Boston, MA and New York, NY U.S.A.), although it appears to have been well described in the literature only once (Warren 1890, *Report on the birds of Pennsylvania*, 2nd Ed., Harrisburg, PA U.S.A.), who observed it during fall migration. He was cited by Bent (1937, *Life histories of North American birds of prey*, Part 1, U.S. Natl. Mus. Bull. 167, Washington, DC U.S.A.) and Palmer (1988, *Handbook of North American birds*, Vol. 5, *Diurnal raptors*, Yale Univ. Press, New Haven, CT U.S.A.), who also briefly described the behavior seen in the spring, which he interpreted as one bird being a territory holder and the other an interloper. Palmer was cited by Preston and Beane (1993, *in* A. Poole and F. Gill [Eds.], *The birds of North America*, No. 52 *The Academy of Natural Sciences*, Philadelphia, PA and *The American Ornithologists' Union*, Washington, DC U.S.A.). Voelker (1969, *Loom* 41:90–91) witnessed courting birds locking bills in flight and falling to the ground, and he quotes another observer who reported courting birds locking bills or feet and falling to the ground. Both of those observations were made in March.

On 24 January 2000, two Red-tailed Hawks (*Buteo jamaicensis calurus*) were recovered under an electrical transformer near the entrance to the National Guard Armory in Santa Fe, New Mexico by the Public Service Company of New Mexico. They had been electrocuted and partially burned; all four of their talons were locked together. One was in normal definitive plumage, the other was a dark-phase bird with a sub-definitive banded tail. Both birds were females with ovaries measuring  $8 \times 20$  and  $8 \times 15$  mm, respectively. They were too burned to be preserved.

This incident of talon-locking between female Red-tailed Hawks occurred in January, suggesting aggressive interaction, in which one hawk was attempting to displace another hawk that was perched on the pole with a transformer. With talons locked the two birds made contact with two wires resulting in electrocution.

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