Columbia, Maryland

Monitoring Reintroduced Bald Eagles, Continued from page 3

eled to the mainland (Fig. 3), and two (A-05, A-09) died while unsuccessfully attempting to fly between Santa Cruz Island and Anacapa Island, or to the mainland (Fig. 4). The remaining Alaskan bird was picked up alive in the water halfway to the mainland and will be returned to the Santa Cruz Island towers until it is ready to be released again. Of five birds bred by the Zoo, there are currently three on the islands (A-00, A-01, A-02) and the location of one is unknown. The fifth bird (A-03) also failed to make the crossing to Anacapa Island (Fig. 4). From this year's data, it appears as though the Alaskan birds have a greater tendency to migrate, which might be expected for birds from a more northern population. In the future we will likely attempt to acquire eagles for release from populations in California (Zoo and wild), Oregon, and Washington to reduce the number of birds leaving the release area.

The PTT data are also providing us additional information that was not available to us when using traditional VHF transmitters. It appears that birds dying in



Yankeetown students: Continued from page 4

rapidly evolving from forest to ranchland to intensive rowcrop agriculture. The students are learning about these places as they map the travels of swallow-tailed kites and see and hear what we have learned there with our field work; there are obvious connections between the project's biology lessons and related ones in math, geography, and social studies.

These pursuits will be enough to fuel hours of classroom learning until spring, when the kites return. Then it will be time to involve the students in finding nests, looking for radio-tagged kites, monitoring nesting progress, and perhaps helping to capture and mark a few more birds. The swallow-tailed kites they have followed from afar through fall and winter will be back with them, within sight, and within their care.

There have been many generous contributors to the broad project of which the Yankeetown school program is a part: Florida Fish and Wildlife Conservation Commission, Disney Wildlife Conservation Fund, Felburn Foundation, Georgia Department of Natural Resources, Plum Creek Timber Company, and the U.S. Fish and Wildlife Service.



the water may be a major source of mortality among bald eagles, especially those that have to cross large bodies of water. Prior to using the PTTs, we assumed that most birds made the crossing to the mainland from Santa Catalina Island. During the twenty three years of the Santa Catalina Island project, there have been only four occurrences of birds being found dead or alive in the ocean.

We are also getting information on travel paths and rates that were not previously available. The two birds that are currently on the mainland moved an average of about 200 km/day during their initial dispersal. One bird (A-07) flew approximately 1500 km, to southwestern Wyoming, in only eight days, and A-04 flew approximately 850 km in four days (Fig. 3). Prior to using the PTTs, we depended on reports of eagle sightings (primarily of the wingmarkers) to get information on mainland bird locations, general travel rates, and survival.

Over the next few years, the PTT data should provide us a clearer picture of the outcome of our reintroduction efforts than has been possible in the past, allowing us to modify our techniques.

Relative proportions of breeding, wintering, and migration seasons for swallow-tailed kites nesting in the United States



with their challenging graduate research on swallow-tailed kite genetics and migration stopover ecology (respectively). We all hope that we can continue the program with the Yankeetown students, perhaps even expanding it to other schools. We offer a special thanks to Genie Sturtevant for adding this project to the challenge of doing so much with so little, and to Microwave Telemetry for creating their grant program.