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The largest, finest and most colorful of the North American hawks of the genus *Buteo* is the Ferruginous Hawk, *Buteo regalis*. Endemic to a limited area of North America and Mexico, and until recently, poorly known even throughout its range, the species was first collected and named by British and German nationals. One specimen, collected by F. Deppe in 1836, was made the type of *Falco ferrugineus* by H. Lichtenstein, but the name was preoccupied. Another was assigned the name *Buteo regalis* by G.R. Gray of the British Museum in 1844. A.J. Grayson, an American painter and naturalist, named the species *B. californica* in 1857. It is unfortunate that this name was preceded by Gray's, as Grayson was the only worker who knew the species from the wild.

HABITAT USE AND MOVEMENT PATTERNS OF SUBADULT BALD EAGLES IN FLORIDA

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Very little was known about seasonal movements or habitat requirements of the various age classes in subadult Bald Eagle populations, particularly in an area such as Florida where resources are widely scattered and eagles do not form large winter concentrations. Consequently, I conducted a radio-tracking study of nestling eagles from spring 1987 to spring 1991. Locations of radio-tagged eagles allowed examination of specific habitat requirements and movement patterns. Landscape level habitat use and distance to various features of the landscape was examined with a Geographic Information System based on a LandSat satellite image.

WHAT DO SWAINSON'S HAWKS REALLY EAT?

WOODBRIDGE, B. *U S. Forest Service, Klamath National Forest, 1312 Fairlane Rd., Yreka, CA 96097*

I examined the diet and prey base relationships of Swainson's Hawks during the course of a long-term population study in northern California. Results of pellet analysis, observations at nest sites and feeding experiments with captive birds were compared. Belding's ground squirrels were strongly overrepresented in pellets and remains in nests whereas montane voles and other small prey were underrepresented. Dramatic seasonal variation in availability and body composition of certain prey species resulted in temporal shifts in prey selection by nesting hawks. Belding's ground squirrels may have been important in increasing body condition of hawks prior to egglaying, but were not selected by hawks that were feeding young.

POSTER PAPERS

THE ARIZONA BALD EAGLE NESTWATCH PROGRAM

BEATTY, G. *Arizona Game and Fish Department, 2221 W. Greenway, Phoenix, AZ 85023*

Arizona supports 28 Bald Eagle (*Haliaeetus leucocephalus*) breeding areas mostly along the Salt and Verde Rivers in central Arizona. Coordinated by the Department and funded by the Southwestern Bald Eagle Management Committee, the Nestwatch Program places 20 nestwatchers at sites where human disturbance may impact breeding success. Nestwatchers collect biological information, enforce seasonal closures surrounding the nests, and educate the public about desert nesting Bald Eagles. Our display describes the Bald Eagle's adaptations to the desert, impacts that threaten the bird's breeding success, and the Nestwatch Program's place in the State's efforts to manage the species.

THE RAPTOR RESEARCH FOUNDATION. INC.—25 YEARS

CLARK, RICHARD J. *Department of Biology, York College of Pennsylvania, York, PA 17403-3426*

The Raptor Research Foundation first met on 2 September 1965 in Madison, Wisconsin with 12 members from three countries attending. The Foundation has grown to 1059 members from 46 countries. The Raptor Research News was first published in January 1967 at a cost of $0.25 per issue while *The Journal of Raptor Research* in 1991 costs $5.50 per issue. Comparing this cost with 32 other publications indicates the cost is third from the lowest with the mean for the journals compared being $13.63. Membership dues of $18.00 compared with the average of $72.10 are extremely low. This poster plots the geography of its membership and the location of its annual conferences. The Foundation's historical background is presented as a basis for planning the Foundation's future.

FIELD OBSERVATIONS ON THE STYGIAN OWL *ASIO STYGIUS* IN BELIZE, CENTRAL AMERICA

FRANZ, MARK. *New College, Sarasota, FL 34243*

A pair of adult owls was observed for one month in June of 1989 on a 1700 acre tract adjacent to the Belize Zoo in Belize, Central America. Observations were made concerning roosting, hunting, and nesting. The observation area consisted of savannah and pine flatwood habitat. During the observation period, the pair utilized the savannah for nesting and hunting and the pine flatwoods for roosting. Hunting was active, and consisted of aerial captures of bats, birds, and large insects primarily at dawn and dusk; pellets collected were composed mainly of bat remains. The nest location was found in savannah habitat at ground level. Very little is known about the Stygian Owl, and the information yielded from these observations, including rare film footage of the subject pair, will serve as a prelude to further study.

WHAT FACTORS CONTROL LAKE SUPERIOR BALD EAGLE PRODUCTIVITY?

MEYER, M.W. AND D.E. ANDERSEN. *Bureau of Research, Wisconsin Dept. of Natural Resources, Madison, WI 53716 and Minnesota Coop. Fish and Wildlife Research Unit, Dept. of Fisheries and Wildlife, University of Minnesota, St. Paul, MN 55108*

The number of Bald Eagles nesting on Wisconsin's Lake Superior shoreline increased from two pairs in the 1970s to 17 pairs in 1991. Reproductive success and productivity of these eagles has improved, although reproductive rates are lower than at inland Wisconsin sites. Prey items and eagle tissues collected along the Wisconsin Lake Superior shoreline have higher concentrations of organochlorines (PCBs and pesticides) than at inland nesting sites, indicating that prey contamination may continue to be a cause of reduced productivity. In addition, climatic data, observations of nest behavior, and nestling lipid levels indicate that the environmental/physical factors may also impact the Lake Superior Bald Eagle population.

NOTES ON RARE AND UNCOMMON BIRDS OF PREY IN QUINTANA ROO, MEXICO

RANGEL-SALAZAR, J.L., P.L. ENRIQUEZ AND E. ESCOBEDO. *Departamento de Ecologia Terrestre, CIQRO, Ap. Postal 424, 77000 Chetumal, Quintana Roo, Mexico*

Quintana Roo State supports a large number of raptor species; however, not all of these have been described. In this paper we present our observations on the nest and food habits of the Black Hawk-Eagle (*Spizaetus tyrannus*); food habits of the Black-and-white Owl (*Ciccaba nigrolineata*); and the current distribution records of several birds of prey within the state, such as the Ornate Hawk-Eagle (*Spizaetus ornatus*), Collared Forest-Falcon (*Micrastur semitorquatus*) and the Lesser Yellow-headed Vulture (*Cathartes burrovianus*) among others. The state of Quintana Roo has recently been incorporated into the national development program and the threats to raptor habitats are increasing.

FILMS AND VIDEOS

"ON A WING AND A PRAYER"—G.M. SUTTON AVIAN RESEARCH CENTER'S SOUTHERN BALD EAGLE RESTORATION PROGRAM

COLBERT, K.V., S.K. SHERROD, M.A. JENKINS AND A.E. BESKE. *G.M. Sutton Avian Research Center, P.O. Box 2007, Bartlesville, OK 74005*

This 30-minute video was filmed by award winning video photographer Tim Yoder and is narrated by reporter Rick Peterson of Tulsa's CBS affiliate, Channel 6. The photographer accompanied Sutton Research Center personnel during all phases of the 1990/91 Bald Eagle Restoration Program field season. The video explains the need and rationale behind the restoration program in a popular and dramatic way while showing all the steps from egg removal to the final success of hacked eagles fledging young in the wild.

TUNKURUCHU

DURING, C. AND J.L. RANGEL-SALAZAR. *Departamento de Difusion, CIQRO, Ap. Postal 424, Chetumal, 77000 Quintana Roo, Mexico*

Conservation of Neotropical raptor communities and species is an important issue in Latin America. In this video, we feature research on the Black-and-white Owl (*Ciccaba nigrolineata*), a threatened species which inhabits the state of Quintana Roo, Mexico. The main goals of the video are to teach raptor study techniques and to relate the importance of the owl in the natural ecosystem. Tunkuruchu is the common name for owls used by Mayan people. They believe that owls are symbols of darkness and death.

INTIMATE NESTING BEHAVIOR OF DAMAGED, WILD, GREAT GRAY, BARRED AND SNOWY OWLS

MCKEEVER, K. *The Owl Rehabilitation Research Foundation, R.R. 1, Vineland Station, ON Canada L0R 2E0*

Video coverage, with pan, tilt and zoom, of successful breeding of these species, among eight others, at the Vineland facility. The tape demonstrates that if damaged, wild owls have access to very large areas, in appropriate vegetation, with choice of mate, territory and nest site, new bonds can be formed and brought to natural fruition. Offspring are raised entirely by their wild parents, protected from human view, pursuing live rodents, and are psychologically releasable whence one parent originated.

GOLDEN EAGLES IN JAPAN—BE AS THE WIND FOREVER

YAMAZAKI, TORU AND M. IWASAKI. *The Society for Research of the Golden Eagle in Japan, 482-57, Yukihata, Yasi-cho, Yasu-gun, Shiga Prefecture 520-23, Japan*

Japanese people and Golden Eagles have maintained a close relationship for a long time. But until recently, Golden Eagles existed mainly in legends, and there was no documentation of their ecology. The Society for Research of the Golden Eagle brought to light that there are only 118 pairs in Japan which are moreover threatened with extinction. It took ten years to complete this film in the steep mountains. We have filmed three "Fortresses," the Cliff Nest, the Valley Nest and the Nest in the Wind. This film introduces the ecology and the endangered situation of Golden Eagles in Japan. We have produced this film in the hope that it may raise public consciousness so that Golden Eagles may "Be as the Wind Forever."