Breeding Project Reports

Frank L. Beebe (Victoria, B.C.) Peregrine Breeding Project. At the conclusion of the airport gull clearance projects the remaining falcons were transferred to breeding projects at the request of the Raptor Research Foundation. Beebe's report was mainly concerned with his project involving one pair of Peale's Peregrines which came from the airport clearance project.

A well-documented procedure was followed to introduce the pair to each other and to condition them to feeding together at liberty in the "breeding room." This was done in the fall of 1965. By March there was observed what appeared to be a sort of courting ritual but no eggs were produced. The birds were at this point two years old. Near the end of March both birds entered a deep and rapid molt. Following the molt, and starting in early July, both birds were flown to the lure together until December. At this time all flights were discontinued and they were confined to the 12 x 18 x 8 building.

Between the ninth and fourteenth of March 1966 3 eggs were laid. Both birds in turn incubated the eggs. When they did not hatch after 33 days of incubation the eggs were sent to South Dakota. They were examined by Dr. Walter Morgan, poultry specialist at S. Dak. State University and no embryo was found. If the eggs were ever fertile the embryo died at a very early stage. One egg was sent to Patuxent for pesticide analysis.

Eight young birds were collected on permits from the British Columbia fish and game department granted for the purpose of providing additional stock for the breeding projects. These young were adopted by the adult pair discussed above and raised. Both male and female took part in feeding the young birds, adopting them immediately upon their introduction to the quarters where the eggs had been laid. This was surprising to the experimentor as there was a time lag from April 16 to June 11 when the eggs were removed to the time of introduction of the young Peregrines.

Though there was evidence of courtship, no copulation had been observed. However, the experiment is being repeated and Beebe reports that about the middle of November 1966 he witnessed copulation for the first time.

It was noted that the only documented case of fertile Peregrine eggs being produced in captivity also produced apparently infertile eggs on the first attempt.

Note. It is considered that the Peregrines raised by the adults are of considerable value as subjects for future breeding attempts and are being conditioned by three other breeding projects as basic stock. The progress of Frank Beebe is a source of great encouragement to those conducting breeding projects and there is high hope that as early as 1970 a strain of captivity breeding Peregrines will be well on the way of being established. (Summary of a longer report by Beebe, prepared by Don Hunter.)

Ron Austing's Breeding Project. Red-tailed Hawks: Male obtained as eyas in 1958, by Peter Maslowski, trained and flown at rabbits for two years, then given to me. Very aggressive individual, once opened a gash over Pete's eye that required 26 stitches. Female obtained as passage in November, 1960, wing-shot by hunter. Exceedingly gentle individual, and like male, fearful of nothing. Both were released in an old building in early 1963, about 20 feet long, 12 feet wide, 7 feet high. Oil drum was provided for a nest site, filled to within a foot of the top, old red-tail nest placed on top of this. Additional sticks and nesting material was provided. Male showed immediate interest and added to the nest with the material provided. He spent much time shaping the center depression. Female failed to show any interest. Both birds remained in these quarters until the fall of 1964, having shown no further interest that spring. (Male again rebuilt nest, etc.)

A series of large enclosures was then constructed to serve as quarters for various other birds that had come into my possession that I preferred not to keep tethered. These measure about 18 feet long, 10 feet wide, 7 feet high. The red-tails were transferred to one of these in late 1964. A golden eagle and horned owls occupied the adjacent enclosures. Both hawks took an active part in rebuilding the nest in February. I observed copulation several times in early March. Unfortunately I spent the last two weeks of March in a hospital. My wife brought me the news March 17 that the female was incubating two eggs. I persuaded the doctor to let me return home for a day in order to get a few photos. About 3 weeks later one of the eggs exploded beneath the incubating female, frightening her badly; but she returned to the job some hours later. After 35 days I was convinced the remaining egg was also bad, even though it didn't "slosh." A small hole was drilled to blow it, when an almost fully developed chick was found inside, very near hatching. I attempted to repair the egg with scotch tape, but without success. A two day old chick was obtained from a wild red-tail nest and was raised perfectly by the hawks. Both birds shared in the feeding of the young about equally. The male was most anxious to assist in incubation anytime the female was off the nest for any reason, and also brooding.

Throughout the year both birds were fed about 85% chicken heads, with occasional road kills of rabbits, etc. With the introduction of the chick, white mice were substituted entirely for the first few weeks, then a gradual changeover to the basic diet. The birds were always fed just about as much as they wanted, once each day in the afternoon. This amounted to about 5 heads per day, 3 for the female. Feeding was regulated to immediate response to the food as soon as it was introduced. If response was slow due to warm temperature, etc., feeding was cut to one head each or eliminated entirely that day. I attempted to keep the birds in high condition yet not really fat; about similar to wild birds.

This year, 1966, things went along similar to 1965. Female laid first egg March 11, second March 14. One egg pipped April 15 and was hatched the next day. Other egg bad. At this writing the hawklet is

a week old and in excellent condition. Only difference in the birds this year is their aggressiveness towards me. Last year I could enter the cage and handle the young or eggs with no problems. Anyone else would have been clobbered! In fact any time a stranger would enter the yard, the birds would hurl themselves against the wire in efforts to attack. The horned owls and eagle were constantly attacked with such vigor that I was obliged to partition them off with plywood. This year, both birds have threatened me when I entered the cage to inspect the eggs and now that the egg is hatched I am sure my entrance would not be tolerated.

Prairie Falcon: Female obtained as eyas in 1959. Of interest, she began first molt that October and finished in February, clean. She first became clucky about that time, never outside, but always when returned to the mews in the evening or after flying. For years her clucking area was around her block in the mews (screen perch never used). After the first year she would become clucky sometime in December and remain so until May or June. Seeing me in a pair of slippers, and/or shorts, always had a very pronounced effect that would cause her to increase her enthusiasm. Any strangers that ever entered the mews were invariably threatened, regardless of the season. Outside, during the clucking season, onlookers were usually bombarded during this time; the rest of the year they were totally ignored. Weight flying ranged from a low of 28 to a high of 33 depending upon conditions. No layoff for molt ever. Only complete layoff was each year Nov. 15 - Jan. 15, the gun hunting season. Moult always clean, not even a contour feather has ever been retained.

Last year, 1965, I released her in the mews in the basement on Nov. 15 and provided a nest ledge to see if she might lay eggs. Most of her time was spent on the ledge. When I entered the room, if she was not already on the ledge, she would immediately fly to it and begin clucking. No eggs were laid.

This year, 1966, I provided a sand ledge and again released her Nov. 15. Immediate interest was shown in the ledge. By late February I obtained a year old eyas prairie, obviously too young for reproduction, but I decided to introduce them anyway, for the experience. After giving her a chicken head I walked into the room with the tiercel and let her see him. No reaction. I released the tiercel. He flew around from perch to perch a few times. Still no reaction whatsoever from the falcon. After finishing her meal she flew up to a perch near him and twisted her head upside down to look him over. Some hours later the tiercel began screaming. I went down to watch through the peep hole and found the falcon chasing him around from perch to perch, as if to test him, or show him who was "boss," etc. She never made any effort to lay a foot on him, however. This behavior continued off and on for several days, then was discontinued altogether. After about two weeks the falcon would regularly fly up to the tiercel and bow down and begin clucking all around him. When I entered the room, if she wasn't already there she would fly to the shelf to continue clucking. As a matter of interest I began stroking her back, then beneath her tail around the vent. This would cause

her to stand nearly on her head with tail straight up! Four eggs were laid: March 18-21-24-26. She began sitting with the third. The eggs are still solid at this writing, April 23, but I am all but certain they cannot be fertile. With an older male I'm sure we would have young falcons. The area is about 25 feet long, 12 feet wide and 7 feet high. There are no windows and a 25 watt bulb supplies light at all times. (Report prepared by Ron Austing.)

An Evaluation of Raptors Nesting in South Dakota

A raptor breeding population count has been undertaken primarily for the use of the Game, Fish and Parks Department to provide information for purposes of management.

Though a complete census will not be possible, fairly accurate estimates can be made if the sample data are selected with care. As this program develops it is hoped that with the aid of knowledgeable persons a highly representative sample can be obtained. Considerable care is being taken in choosing cooperators as even well-intentioned disturbances can adversely affect nesting success. Also, since all interests in raptors are not oriented toward preservation, data are considered highly confidential as to nest or eyrie locations.

In addition to merely a count of breeding birds, data on nesting success are being gathered. Over a period of several years these data may be meaningful in several ways, particularly so in indicating trends and in correlation with other phenomena to indicate possible causes of such trends.

Only in areas where personal observations were made within the past few years can comparisons be made to indicate a possible trend. It is our impression from these isolated cases that Prairie Falcons (though not common anywhere), and Redtailed Hawks are showing a slight gain, while Marsh Hawks are down. It also appears that Golden Eagles, Marsh Hawks, and Swainson's Hawks had relatively poor percentage of nesting success, Kestrels perhaps showed a good percentage while Prairie Falcons, Redtailed Hawks and Ferruginous Hawks had an excellent year, as did Great Horned Owls.

To date we have no report of successful Marsh Hawk nesting for this year. It is our impression that the total number of these birds is way down.

Of the four known Golden Eagle eyries in South Dakota, two are known to have been unsuccessful in 1966, another contained an egg in mid-June and is assumed to have been unsuccessful, and the fourth was unchecked but an unverified report indicated that two young were flown from this eyrie.