

# RAPTOR RESEARCH NEWS

A Quarterly Publication Of The Raptor Research Foundation, Inc.

Volume 1

January 1967

Number 1

Editors: Donald V. Hunter, Jr., Centerville, South Dakota Byron E. Harrell, University of South Dakota, Vermillion, S. Dak.

This newsletter has been planned as a medium of information exchange between persons interested in any aspect of research on raptors. To be successful in this aim we are sending out this first issue to as many people as we can that may be interested. If you are interested, we hope that you will tell others that may also be interested that you will affiliate with the Foundation or at least subscribe to the newsletter, and that you will send items of interest for the newsletter of research on hawks and owls so that it can really be a medium of information exchange.

The Raptor Research News will be sent to each member of the Foundation; the membership consists of the Board of Directors, the Advisory Board, and Associate Members. Associate membership is open to anyone who makes a financial contribution for a particular calendar year. A calendar year subscription to the newsletter is also available for \$1.00. Contributions or subscriptions should be sent to The Raptor Research Foundation, Centerville, South Dakota 57014. An application for tax exempt status on contributions has been applied for.

This newsletter will appear during the months of January, April, July, and October. Material for the issue should be in the hands of one of the editors before the 15th of the preceding month.

## A Short History of The Raptor Research Foundation

The idea of some sort of organization of persons interested in raptors in a broad sense had been talked about for some time. Existing organizations which include concerned people were considered too general (ornithological societies) or too specialized (falconry associations). It was felt that an organization devoted exclusively to the birds of prey would be desirable. It was also felt that the number of concerned people was getting larger and that the changes going on in the status of many species of birds of prey and their environment justified an organizational approach. The Foundation began in an informal way in 1965 and with the support of others was formally organized later in the year by Donald V. Hunter, Jr., an attorney from Centerville, South Dakota, who has long been interested in the biology of birds of prey and in falconry; by Dr. Byron E. Harrell, an ornithologist at the University of South Dakota at

Vermillion, who is currently conducting and supervising research on birds of prey; and by Dr. Paul F. Springer, Leader of the Cooperative Wildlife Research Unit at South Dakota State University at Brookings, who adds a broad background in wildlife management to the organization. A Certificate of Incorporation was issued by the Secretary of State of the State of South Dakota on February 11, 1966. Bylaws of the Foundation have been drawn up and approved, and application for tax-exempt status for contributions has been made.

One of the most important activities at present began before the formal organization, as a cooperative effort to develop methods of breeding birds of prey in captivity by Hunter, Frank Beebe, Harold M. Webster, G. Ronald Austing, Richard Fyfe, and others. If some of the disastrous population changes continue, it is best to develop some of the necessary techniques while birds are available. It is also clear that some types of scientific research will only be possible with, or greatly aided by, birds in captivity.

The first general meeting of the Raptor Research Foundation was held in Madison, Wisconsin, on September 2, 1965, following an international conference on Peregrine Falcons; a report on this meeting prepared by Dr. David Hancock of the University of British Columbia is summarized in this newsletter. A second general meeting was held in Centerville, South Dakota, on November 26, 1966, at the time of a national falconry meet; a report on this meeting prepared by the editors is also included in this newsletter.

The Foundation is organized and incorporated as a Non-Profit Corporation. The number of incorporators who became the original Board of Directors was kept small initially to enable them to meet frequently enough to expedite the activities of the organization. In order to broaden the limited base provided by a small board, a larger advisory board has been authorized. The Directors hope that the Advisory Board will be representative of the wide variety of backgrounds of those interested in raptors. It is planned to call upon such advisors as appropriate and occasionally send question-naires to them as a basis for making policy decisions. It is hoped that with this arrangement the organization can function in a practical but still representative fashion. A number of people are being invited to join the Advisory Board. We plan to publish a list of the members of this board in the April newsletter.

A policy on projects which use the name of the Foundation is being developed. One important aspect of this is related to the obtaining and the legal status of birds used in the breeding project. It is the policy of the Board of Directors of the Foundation that in order for a project to be given permission to use the name of the Raptor Research Foundation, approval by the Board must be obtained. We are making up a form on which proposals may be made. The reason for this is to provide a file of purpose and program of sponsored projects to give continuity to the effort and afford

protection for the Foundation and the investigators. In the future we hope to have sufficient money to make small grants to support research.

Other aspects of the Foundation are being developed as time permits. We look forward to your comments, criticism, and suggestions.

### The First General Meeting, September 2, 1965, Madison, Wisconsin

The time and place of this meeting were chosen because of the international gathering of raptor researchers attending the Peregrine Conference of the preceding four days. Thanks are here offered to Dr. J. Hickey and the University of Wisconsin for the facilities provided to our group.

Persons attending the Raptor Research Foundation Meeting were:

Chairman: Don Hunter, South Dakota

David Hancock, B.C., Canada Frank Beebe, B.C., Canada Richard Fyfe, N.B., Canada Joe Simonyi, Ontario, Canada Fran Hammerstrom, Wisconsin Fred Hammerstrom, Wisconsin Lucille F. Stickel, Patuxent, Md. W. H. Stickel, Patuxent, Md. Morlan Nelson, Idaho Steve Herman, California Granger Hunt, Texas Hans Herren, Switzerland

<u>Discussion topics</u>. Since time was limited and since considerable time of the Peregrine Conference had been devoted to the general lines of Raptor Research needed, the meeting was primarily concerned with breeding raptors in captivity.

Bibliography and previous related research. A list of person and literature references was volunteered by the members. By necessity these are incomplete in detail and by no means exhaust the topic. The most notable point here is that there is undoubtedly a great wealth of references and particularly of persons with unpublished pertinent information which must be gathered up, correlated, evaluated and made available to all concerned.

Prestwick's book, "A Record of Raptors Bred in Captivity" is a fine introduction—a reference to many successful breeding attempts. However, this compilation refers only to published accounts of successful attempts—it omits references to failures which may well contribute as much as successes in our early stages of investigation. Furthermore, considerable work has been done since the book was published.

The discussants were agreed that the Foundation should undertake the initial responsibilities of bringing together and correlating as much of this published and unpublished data as possible so it is available. Initially it would probably be feasible to try to issue lists of references as a supplement to Prestwick's list. Hopefully, the information from these literature references and persons with experience can be summarized on record cards. For example, each worthy breeding attempt would have a separate card listing, for instance, species, age and where the birds were acquired, dimensions of pen, birds' behavior, management, etc. Technical photos might also be helpful. A few of the discussants related more citable personal experience of which a couple are briefly related here; though they will be presented in greater detail later.

- (1) Peregrine Falcon laying eggs unmated. Morlan Nelson, Boise, Idaho (report being prepared by Morlan).
- (2) Reestablishment of Peregrine Falcons nesting at deserted eyrie site Joe Simonyi, Hornby, Ontario.

A wild caught immature male was brought from a hawk dealer; later it was fed daily (in morning) on same log by an old deserted eyrie site for three weeks, then released. This male, distinguished by its tail plumage, got a mate who laid 4 eggs, hatched 4 eggs, and reared 4 young to about 3 weeks old and then they were thought to be taken from the nest by persons unknown. This is indeed a remarkable feat and Joe is to be highly congratulated. Prior to the release of the male a desirable nesting ledge had been sprinkled with lime to simulate the characteristic whitewash. After release he had repeatedly served the male live prey.

Joe also tells us how this technique had been carried out three times previously in Italy and how his grandfather in Hungary had bred peregrines many years ago. Hopefully, Joe will separately write up his reintroduction experiment for us and secondly put down on paper what he recalls of his grandfather's experiments.

(3) Kestrels Breeding in Captivity - Mr. and Mrs. Stickel, Patuxent Research Center, Laurel, Md.

In connection with pesticide research to study the effects of various poisons on the reproduction of the Kestrel, 41 pairs were acquired (mostly eyasses) were housed separately, provided with two nesting boxes per pen and fed on ground meat and turkey starter mix. Forty of the 41 pairs laid eggs, many laid 2-3 clutches. The number of fledglings produced was very low, due to eating of eggs and young by adults. It is hoped we will have more detail from the Stickels on this extremely promising project shortly.

Approximate Food Mix Formula

- 1. 20 quarts 2/5 edible offal from a slaughter house, ground up. 3/5 lean beef ground.
- 2. 5 pounds turkey breeder food mash.
- 3. 2 tbls. sp. bone meal vitamin supplement.

The above is ground and mixed together while still partially frozen and fed in small "meat patties" of a size that birds could carry.

The turkey mash formed pellets. (Who said that hawks wouldn't eat ground meat?)

At this time in the discussion two cautions regarding food were presented.

- 1. Turkey Starter. Most commercial turkey starter contains additives: antibiotics and sex depressants (Amptil). This sex depressant might jeopardize breeding experiments. However, Turkey Breeding Food is good and does not contain the depressants.
- 2. Chicken Heads as Food. Many persons successfully feed chicken heads but Frank Beebe warned that many chicken "production plants" now insert or inject growth hormones into the neck of young birds to promote growth. He cautioned that perhaps such hormones might have deleterious effects.

#### BETTER CHECK!

Management and housing. Considerable attention was given to how potential breeders should be housed. The merits and personal preferences of wire versus barred pens were discussed. Should birds be outdoor or indoor? What features of pen construction are desirable when considering protection from sun, wind, cold and disturbance.

The many diverse ideas all had some merit and had been used by various persons in housing raptors at one time or another. This diversity of ideas suggests the necessity of a complete review of published and unpublished material on this matter.

A technique often desirable to reduce injury to birds when they fly into the wire or wooden slats is to hang rope net (herring sein net or camouflage net) on the inside of the wire or wood to "soften" the blow.

Species recommended for initial breeding programs. The consensus of opinion seemed to be that most effort should be devoted to the Kestrel, Peregrine and Bald Eagle. The latter two species have many populations already exterminated or threatened with extinction, yet other populations remain in such abundance as to afford experimental breeding material.

On the other hand, many individuals unable to assist directly in major concentrated projects would be able to make as great, if not greater contribution, by working with one or two pairs of whatever species are available to them. In essence, it would be desirable to gather data on as many species as possible under a wider range of conditions and at the same time have more extensive studies which utilize and test out the data provided by the small-scale projects in the few major concern species.

Sources of financial support. Since the Raptor Research Foundation is being set up as a non-profit corporation it will be able to accept monies (tax deductible) from granting agencies, business and private donors.

This aspect and the policy of the Foundation will be dealt with at a later date.

The discussants at this meeting were unanimously in support of a foundation to guide and stimulate scientific interest in the raptorial birds. The world plight of the Peregrine Falcon and other raptors which was reviewed at the Peregrine Conference certainly pointed out the great need for further investigation.

(Prepared by David Hancock, Zoology Department, University of British Columbia, Vancouver, B.C., Canada.)

#### The Second General Meeting, November 26, 1966, Centerville, S. Dak.

This meeting was held because of the presence of a number of interested persons at a national falconry meet. Twenty-six persons were present from various places in the United States, Canada, and Great Britain. Don Hunter presided. Those present introduced themselves, and for background information Hunter read the material printed in the Foundation brochure.

Breeding project. Brief informal reports were made by those present who were involved with the breeding project. Progress was reported by Frank Beebe and for Ron Austing (by Hunter). Longer reports on these are reported elsewhere in the News. Henry Kendall reported on his plans for a breeding project with Peregrines and Prairie Falcons. He also reported on experiences with two hand-raised male Red-tailed Hawks which might be useful in artificial insemination experiments since they would undergo copulatory behavior with a little stimulation while held in the hand.

Dr. Heinz Meng reported that he obtained a first year wild caught Red-tailed Hawk in 1946 and that since the fourth spring it has laid 2 or 3 eggs each spring. Since these were infertile he replaced the eggs with wild-obtained eggs of Red-tailed Hawks, Goshawks, Prairie Falcons, and even chickens which she incubated. Last year when the eggs were removed she laid 2 eggs three weeks later. This definitely indicates recycling in a captive bird. He described a new breeding house 30 x 15 x 10 feet at the eaves. Two passage birds that were taken in 1964 were put in the breeding chamber in May 1965; last spring the birds were seen to bow to each other and the male was seen to take food to the female who took it.

Bob Berry described his experiences with Goshawks kept in a 25 foot high 30 foot long building which had inside and outside chambers. The female did not accept the male; however, she built

a nest and would incubate, and she raised a young Red-tailed Hawk which was substituted in the nest. He would like to obtain an adult male. Beebe offered an adult male European Goshawk.

Don Hunter reported on experiences with Peregrines. No eggs were produced but by changing the lighting both birds were brought into the molt at the same time; the female of Arctic origin and the male of Irish origin ordinarily molt at different times.

Jack Mavrogrodato said that 30 years ago he had a four year old Goshawk which laid four eggs after two others were taken earlier. He also pointed out that it might be important to remember that in falcons the male usually picks out the site and that the female adds to it.

Beebe mentioned that five years ago he had a male European Goshawk and a Swedish first year female. He put them on blocks with a larger block between where the food was placed and the jesses just long enough to reach the food but not reach each other. They were then placed together. In April the male was carrying sticks and arranging them; nothing more happened since the female was lost in an accident. He felt that the initial relationship was very important.

Several people commented on food. Meng felt that perhaps the maturity of the birds fed to the falcons was important; he uses pigeons and chicken heads, as much as they can eat. Beebe uses chicken heads and avoids town pigeons because of the uncertainty of what they have eaten. Hunter has frozen six-week old chicks which have never had any DDT exposure; the chicks are also taken off feed containing coccidiostat (an anti-coccidia drug) six days before they are killed.

Population studies. Hunter mentioned his raptor survey in South Dakota reported elsewhere in this newsletter. Harrell mentioned briefly that several students were working on population studies in South Dakota. Beebe has been interested in the Queen Charlottes in British Columbia; during this past year he visited 3 or 4 new islands and he now knows of over 80 eiries although he is quite sure that he is not finding all of them. Mavrogrodato thinks there is a slight upturn in British Peregrines since there has been a decrease in the use of chlorinated hydrocarbons.

Information exchange. Problems in this connection were discussed. This newsletter is an attempt to alleviate some of these.

Education and public relations. Hunter reported on an educational project on an Indian reservation which is reported elsewhere. Beebe reported that there are slides and movies of his breeding project which will be shown on TV in British Columbia.

A number of other subjects were discussed including pesticides.

Fran Hammerstrom mentioned some greatly improved recent techniques for determining concentrations. (Prepared by the Editors)

#### 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 knowledge-able 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.

Swainson's Hawk did well in some areas but in others many nests and young were lost by being blown from the tree by high winds.

Kestrel nest censusing takes a great deal of time. Since time was limited, it was decided merely to note apparently nesting pairs. No success data are therefore available. Our impression, derived from juveniles observed in July, is that success percentage was at least good.

We have only a few Prairie Falcon eyries in the state and it is felt that a high percentage of these were checked. Nesting success was high, over four young fledged from each eyrie. No failures were noted.

Redtails averaged over two per nest. Of all Redtails observed, including those which were classed only as probably breeding, 78% were known to be successful.

Don Adolphson of Huron, South Dakota, reported that twelve pairs of Great Horned Owls in ten different counties fledged 21 young for an average of 1.75 young fledged per nest. Mr. Adolphson also contributed some valuable data on Swainson's Hawks, Redtailed Hawks and Ferruginous Hawks. Some interesting and valuable data on Ferruginous Hawks were gathered by John Flavin of Lemon, South Dakota. The rest of the data were collected by Donald Hunter and Anthony B. Luscombe of Sioux City, Iowa.

Colateral with the census, a two-day raptor recognition and appreciation course was given for the Sioux Ranger Corps Training School at Pine Ridge. The purpose of the course was to provide the rangers with identification skills to help in managing and teaching appreciation of birds of prey on the rather extensive Pine Ridge reservation. Wildlife management is one of the principal missions of the newly formed Ranger Corps. The course was conducted by Donald Hunter with the assistance of Tony Luscombe. (Report prepared by Donald Hunter.)

#### Call for Snowy Owl Observations

Several Snowy Owls have been seen in the Lake States region this winter. A survey of the southward movement of the Snowy Owl is being made this winter to determine the distribution of these birds as well as the extent and duration of their invasion. The following information is requested: Name and address of observer, date, time, and location of observation (state, nearest town, county, and if possible: township, range, and section), habitat, activity, and weather. If bird is perching, how high and on what is it perching? Please send observations to: Thomas H. Nicholls, University of Minnesota, Museum of Natural History, Minneapolis, Minnesota 55455. Cooperators will be sent a report of the results, if requested.

#### LOOKING AHEAD IN THE RAPTOR RESEARCH NEWS

The editors hope our readers have found the contents of the newsletter interesting and worthwhile. We hope to have more on these topics and more on hew topics in the future. We shall solicit notes on various topics but shall also welcome contributions.

Some examples of the type of material we would welcome are: (1) reports from different universities and colleges on the types of research being done on raptors; (2) similar information from other organizations such as state and federal wildlife agencies; (3) reports on developments in pesticide detection; (4) bibliographical material; (5) translations of important foreign papers. We hope the readers will have other ideas which they may wish to pass on to other News readers. Eventually the Foundation may be able to publish formal papers, reports, or monographs in addition to this informal newsletter. We would also welcome comments on the style, format, and publication frequency of the News as well as ideas on the activities and development of the Raptor Research Foundation.