RAPTOR RESEARCH

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SPECIAL CONFERENCE ON CAPTIVITY BREEDING OF RAPTORS—A REPORT

Sponsored by Raptor Research Foundation, Inc. Held at Sioux Falls, South Dakota, U.S.A., November 22-23, 1971

Part A. Introduction.

by Byron E. Harrell Biology Department University of South Dakota Vermillion, South Dakota 57069

This conference was planned to assess the situation, to explore in depth the problems encountered, and to discuss possible future directions in raptor breeding. Formal talks or papers were limited; topics were organized into ten panel discussions on Biology and Management followed by a session on Evaluation and Planning. The program was intended to aid participants in breeding projects. Announcements were sent to all Raptor Research Foundation members and to all zoos in the United States and Canada.

The conference was held at the Holiday Inn in Sioux Falls, South Dakota. There were three sessions on Monday and two on Tuesday, November 22 and 23, 1971. Byron E. Harrell was the coordinator. Arrangements and aid at the meeting were provided by Donald V. Hunter, Jr., Dan O'Brien, Lee Eberly, and Joyce Harrell. Program suggestions were made by Tom Cade, James Enderson, Robert Berry, and Richard Fyfe. We are indebted to the ten panel chairmen who made arrangements for their own topics and to all of the panel members for their presentations. They are all listed below. The conference was tape recorded so a transcript could be prepared. Another conference in 1972 is anticipated.

The program was organized into the following panels.

- 1. Breeding Stock Inventory (Monday morning)—Donald V. Hunter, Jr., Chairman, Bob Hinckley, Roger Thacker, Bruce Wolhuter.
- 2. Housing and General Management (Monday morning)—Richard Fyfe, Chairman, James Enderson, Heinz Meng, James Weaver.
- 3. Health and Nutrition of Breeding Pairs (Monday morning)—William H. Halliwell, Chairman, David E. Allen, C. Wendell Carlson (his presentation on Monday afternoon), James McIntyre, Richard D. Porter.

- 4. Photoperiod Problems and Management (Tuesday afternoon)—Stanley Temple, Chairman (substituting for Tom J. Cade who could not attend).
- 5. Reproductive Endocrinology (Tuesday afternoon)—Erich Awender, Chairman, Timothy Lawson, James C. McIntyre, Stanley Temple.
- 6. Behavioral Consideration to Egg Laying (Tuesday afternoon)—R. Wayne Nelson, Chairman, Richard Fyfe, Frances Hamerstrom, Richard R. Olendorff, Dr. and Mrs. Noel Snyder (not present; contribution read by Nelson) [at the conclusion of this panel J. Gregory Thomas spoke about closed circuit television recorders, their use in observation, and the kinds of equipment available].
- 7. Artificial Insemination (Tuesday afternoon)—Robert Berry, Chairman, Frances Hamerstrom, Walter Morgan, Stanley Temple.
- 8. Incubation, Natural and Artificial (met with Panel 9 Tuesday morning)—Richard Olendorff, Chairman, Robert Berry, James Enderson, John Snelling, Stanley Temple.
- 9. Rearing, Parental, Foster, and Hand (met with Panel 8 Tuesday morning)—James Enderson, Chairman, Robert Berry, Richard Olendorff, John Snelling, Stanley Temple.
- 10. Health and Nutrition of Young (Tuesday afternoon)—Richard D. Porter, Chairman, William H. Halliwell.
- 11. Evaluation and Planning (Tuesday afternoon)—Donald V. Hunter, Jr., Chairman, Panel Chairmen and members.

A packet of 58 pages of material was given to all who had preregistered for the conference. Packet materials included:

- 1. Program (1 page).
- 2. Proceedings of a discussion Meeting on Captive Hawk Breeding (8 pages).
- 3. [6 pages; this was a copy of the MS of a paper in press in RRN; it was included without specific permission, but in response to the author's desire that his views get full consideration; he resented this inclusion, withdrew the paper from publication, and submitted it elsewhere; it is therefore omitted from this list.]
- 4. Galicz, G. and others, "Autumn Egg Production by Captive Peregrine Falcons" (3 pages, see *RRN* 5(6):150-151, 1972).
- 5. Breeding Project Questionnaire (1 page; this and the replies (6-12) are published in *Raptor Research* 6(1):16-18, 21-31 as B.P.I.E. Nos. 28-34).
 - 6. Campbell, J. A. Report on Peregrine, Merlin, Red-tail (3 pages).
 - 7. Allen, David. Report on White-tailed Sea Eagle (3 pages).
 - 8. Meng, Heinz. Report on Peregrine (3 pages).
 - 9. Hunter, Donald V. Report on Goshawk (1 page).
 - 10. Hunter, Donald V. Report on Peregrine (1 page).
 - 11. Hunter, Donald V. Report on Gyrfalcon (1 page).
 - 12. Hunter, Donald V. Report on Red-tailed Hawk (1 page).
- 13. Thacker, Roger. "Estimations Relative to Birds of Prey in Captivity in the United States of America" (27 pages, RRN 5(5):108-122, 1972).
 - 14. List of birds of prey currently held at Cornell-Tom J. Cade (1 page).

- 15. Snelling, John C. Abstract—"Artificial incubation, and temperature aspects of hand rearing downy raptors" (2 pages).
- ' 16. Snelling, John C. Abstract—"Artificial incubation of American Kestrel eggs" (1 page).
- 17. Enderson, James. Abstract—"Experiences with artificial incubation and hand-rearing of falcons" (1 page).
 - 18. Olendorff, Richard. Abstract—"Hand-rearing of Buteos" (1 page).
- 19. Olendorff, Richard. Abstract—"Certificial incubation of Buteo eggs" (1 page).

Additional material (30 pages) handed out at the meeting included:

- 1-6. Additional questionnaire reports (published in *Raptor Research* 6(1): 31-41, 1972, as B.P.I.E. Nos. 35-40).
 - 1. Shultz, Philip L. Report on Prairie Falcon (6 pages).
 - 2. Canadian Wildlife Service. Report on Prairie Falcon (3 pages).
 - 3. Canadian Wildlife Service. Report on Prairie Falcon (2 pages).
 - 4. Canadian Wildlife Service. Report on Peregrine Falcon (3 pages).
 - 5. Canadian Wildlife Service. Report on Peregrine Falcon (3 pages).
 - 6. Canadian Wildlife Service. Report on Peregrine Falcon (3 pages).
- 7. RRF Pathology Committee, names and addresses of members (1 page, part of annual report).
 - 8. Zu/Preem flier (1 page).
 - 9. "The Nutrient Requirements of Chicks" (2 pages).
 - 10. Morgan, Walter. "Artificial Insemination" (outline of procedure; 1 page).
- 11. Artificial Insemination Panel; Practical considerations in artificial insemination; Berry, Robert B. Abstract—"Artificial insemination of captive goshawks" (4 pages).
- 12. Berry, Robert B. Abstract—"Foster Rearing of Raptors in Captivity" (1 page).

Those recorded in attendance are listed below.

Allen, David E., 11332 Sunnyslope, Kansas City, MO 64134 (Panel 3).

Andersen, William C., Otero Jr. College, La Junta, CO 81050.

Awender, Erich, 1317 La Cresta Dr., Freeport, IL 61032 (Panel 4 Chairman).

Berry, Robert B., RD 1, Chester Springs, PA 19425 (Panel 7 Chairman, Panel 8, Panel 9).

Beske, Alan E., 83 North 300 East, Springville, UT 84663.

Blankespoor, Gilbert W., Dept. of Biology, Augustana College, Sioux Falls, SD 57102.

Bond, Frank M., 540 Camino Rancheros, Santa Fe, NM 87501.

Cade, Tom J., Sec. of Ecol. and Syst., Bldg. 6, Langmuir Lab., Cornell University, Ithaca, NY 14850 (not present; originally Chairman of Panel 4).

Campbell, John, Box 130, Black Diamond, Alberta, Canada.

Carlson, C. Wendell, Poultry Science Dept., South Dakota State University, Brookings, SD 57006 (Panel 3).

Carnie, S. Kent, 206 Sheridan Rd., El Paso, TX 79906.

Cranson, Babette, RR 2, La Junta, CO 81050.

Crawford, J. Jeff, RR 2, Box 53, Durand, IL 61024.

Crouse, Rodney N., 4311 S. 71st St., Apt. 3, Milwaukee, WI 53220.

Crowe, Sam, 152 Monte Key, Los Alamos, NM 87544.

Dague, Phyllis R., Lab. of Ornithology, 159 Sapsucker Woods Rd., Ithaca, NY 14850.

Donald, Tom, c/o 1930 Cowan Cres., Regina, Saskatchewan, Canada.

Eberly, Lee, Rt. 2, Box 94, Vermillion, SD 57069.

Enderson, Jim, 10070 Otero Ave., Colorado Springs, CO 80908 (Panel 2, Panel 8, Panel 9 Chairman).

Freitag, Gary, 230 Daphne Way, Broomfield, CO 80020.

Fuller, Mark, 1231 Raymond Ave., St. Paul, MN 55108.

Fyfe, Richard, RR 1, Fort Saskatchewan, Alberta, Canada (Panel 2 Chairman, Panel 6).

Galicz, George, 13281 60 Ave., Surrey, BC Canada.

Goben, Bill, 3016 Benson Rd. S., Renton, WA 98055.

Gorrell, Wallace, 1709 S. Duluth Ave., Sioux Falls, SD 57105.

Graham, Dick, Rocking R Rd., Colorado Springs, CO 80915.

Greichus, Yvonne, Station Biochemistry, South Dakota State University, Brookings, SD 57006.

Grier, Jim. Lab. of Ornithology, Cornell University, Ithaca, NY 14850.

Halliwell, William H., Dept. of Pathology, School of Vet. Med., Columbia, MO 65201 (Panel 3 Chairman, Panel 10).

Halverson, Keith J., Great Plains Zoo, Sioux Falls, SD 57104.

Hamerstrom, Fran, Plainfield, WI 54966 (Panel 6, Panel 7).

Harrell, Byron, Biology Dept., University of South Dakota, Vermillion, SD 57069 (Coordinator).

Hinckley, Bob, RR 2, Monee, IL 60449 (Panel 1).

Hoback, Frank, 942 Canyon Rd., Santa Fe, NM 87501.

Hughes, David, Batworthy, Chagford, Devon, UK

Hughes, Francis, Apt. 1417, 100 De Gaspe, Nun's Island, Montreal, Quebec, Canada.

Hunt, Grainger, Dept. of Zoology, University of Texas, Austin, TX 78712.

Hunt, Deidre, Dept. of Zoology, University of Texas, Austin, TX 78712.

Hunter, Donald V., RR 3, Centerville, SD 57014 (Panel 1 Chairman, Panel 11 Chairman).

Ketchum, Sherm, 11610 W. Lincoln, West Allis, WI 53227.

Lawson, Tim, 7013 Hawks Dr., Olympia, WA 98501 (Panel 5).

Layman, Steve, 813 East 4th, Ellenburg, WA 98926.

MacLeod, Mark, 52 Lake Park, Champaign, IL 61820.

McIntyre, James C., 2937 Country Club Drive, Colorado Springs, CO 80909 (Panel 3, Panel 5).

Marcus, Stanley A., Rt. 2, Coleman, MI 48618.

Mattingly, Edwin, University of New Mexico, 508½ B. Prosperity Ave. SE, Albuquerque, NM 87102.

Meng, Heinz, State University, New Paltz, NY 12361 (Panel 2).

Mesch, Ken, Dept. of Biology, University of Colorado, Boulder, CO 80302.

Morgan, Walter, Poultry Science Dept., South Dakota State University, Brookings, SD 57006 (Panel 7).

Nelson, Alora L., Dept. of Biology, University of Calgary, Calgary, Alberta, Canada.

Nelson, R. Wayne, Dept. of Biology, University of Calgary, Calgary, Alberta, Canada (Panel 6 Chairman).

Oar, Jack, RR 5, Box 226, Rockford, IL 61108.

Oberg, John, Route 1, Owen Center Rd., Rockton, IL 61072.

O'Brien, Dan, Rt. 3, Meckling, SD 57044.

Olendorff, Richard R., 3317 Olympus Dr., Bremerton, WA 98310 (Panel 6, Panel 8 Chairman, Panel 9).

Platt, Joseph B., Dept. of Zoology, Brigham Young Univ., Provo, UT 84601. Porter, Richard D., Patuxent Wildlife Research Center, Laurel, MD 20810 (Panel 3, Panel 10 Chairman).

Rafuse, Bob, 135 Mayfair Cres., Regina, Saskatchewan, Canada.

Richards, Gerald L., 510 Idaho Ave., Provo, UT 84601.

Ricken, Christine, 1200 College Ave. No. 107, Boulder, CO 80302.

Russell, W. C., Omaha Zoological Society, 10th & Deerpark Blvd., Omaha, NE 68107.

Schubert, Teddy, 20 Spring Lane, West Caldwell, NJ 07006.

Schwartz, Charles H., Box 385, Rawson, OH 45881.

Sherrod, Steve, Box 282, Springville, UT 84663.

Shultz, Philip L., 107 Cienega St., Santa Fe, NM 87501.

Simons, Bob, Dept. of Zoology, University of Illinois, Urbana, IL 61801.

Simonyi, Joseph S., 456 Sparton Rd., Victoria, B.C., Canada.

Smylie, Tom, Box 174, Timeras, NM 87059.

Snelling, John C., Cornell Lab. of Ornithology, 159 Sapsucker Woods Rd., Ithaca, NY 14850 (Panel 8, Panel 9).

Snyder, Mrs. Noel, 5113 127th Ave., Tampa, FL 33617 (not present, contributed material to Panel 6).

Snyder, Noel, 5113 127th Ave., Tampa, FL 33617 (not present, contributed material to Panel 6).

Stoddart, John, 430 S. Franklin, Denver, CO 80209.

Stoudenmire, T. Malory, 4233 E. 189th, Cleveland, OH 44122.

Swartz, L. G., Dept. of Biology, Bunnel Bldg., University of Alaska, College, AK 99701.

Taggart, Joe, 143 Browning Lane, Rosemont, PA 19010.

Temple, Stanley A., Lab. of Ornithology, Cornell University, Ithaca, NY 14850 (Panel 4 Chairman, Panel 5, Panel 7, Panel 8, Panel 9).

Thacker, Roger, Dept. of Animal Labs., Ohio State University, 400 W. 12 Ave., Columbus, OH 43210 (Panel 1).

Thomas, J. Gregory, 15 Rolling Springs Court, Carmel, IN 46032 (extra presentation following Panel 6).

Torgersen, Tom, 7844 Torgersen Rd., Eureka, CA 95501.

Trefry, Philip A., c/o R. Fyfe, RR 1, Fort Saskatchewan, Alberta, Canada.

Walker, Skip, Dept. of Biology, University of Alaska, College, AK 99701.

Weaver, Jim, 159 Sapsucker Woods Rd., Ithaca, NY 14850 (Panel 2).

White, Clayton M., Dept. of Zoology, Brigham Young Univ., Provo, UT 84601.

Wilbowr, Craig R., Box 878, Chelan, WA 98816.

Wolhuter, Bruce R., 1405 Willshire, Colorado Springs, CO 80906 (Panel 1).

This report will be issued in parts corresponding to the first ten panels. Pertinent material from the last panel will be included in the appropriate part. The editors of the individual parts utilized the tapes and the transcription mentioned above or their own to prepare the material. In some cases the transcript has been modified for clarity, reduction of repetition, and to provide for more logical sequence. In other cases the individual panel members have rewritten their presentations. The individual reports will be published in the sequence in which they are completed. Pagination will be continuous in this supplement to Volume 6 of *Raptor Research* but page numbers will be preceded by the letter designating the part to distinguish the Supplement from the regular issues.