

ritories as far south as Great Slave and Artillery lakes and irrupting south of the 60th parallel along the shores of Hudson Bay seem correct.

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## TWIN EMBRYOS IN A PEREGRINE FALCON EGG

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Romanoff and Romanoff (1972) suggested that twinning is as common in birds as other vertebrates, arising either from eggs with double yolks, eggs with one yolk and two blastoderms, or eggs with one yolk and one blastoderm. Examples are common in chickens whereas such incidents in wild species are rare. Berger (1953) reported examples of twinning in the American Goldfinch (*Carduelis tristis*) and the Song Sparrow (*Melospiza melodia*); Lokemoen

and Sharp (1981) found twinning in Gadwalls (*Anas strepera*). Twinning has been suggested to be stimulated by stress (Sarvella 1975), such as in the chilling of Mallard (*Anas platyrhynchos*) eggs (Batt et al. 1975) or by inducing hypothermia in adult White Leghorn Chickens (*Gallus gallus* var. *domesticus*; Sturkie 1946). Regardless of the cause, the incidence of twinning in wild species is evidently rare.

As part of the junior authors' survey of reproductive success in Greenland Peregrine Falcons (*Falco peregrinus*), unhatched eggs are salvaged and submitted to the Patuxent Wildlife Research Center, Laurel, Maryland, for chemical analysis to ascertain pesticide residue levels. In preparing eggs collected in 1981, we found that one of the six eggs contained two well-developed embryos. Twinning in raptors has not previously been reported, and this is the first case of twinning we have seen in 90 Peregrine Falcon eggs. No other instances of twinning have been seen in the about 1,500 eggs from other raptors handled by the senior author.

The egg in question was collected on 2 August 1981 in Greenland from Dome Cliff (66°56'N, 51°10'W) and opened at Laurel on 15 November 1981. As compared with other Greenland Peregrine Falcon eggs ( $n = 8$ ), this one was longer

(55.16 mm vs. 52.48 mm) and wider (45.62 mm vs. 40.48 mm). Its water displacement volume (57.5 ml) was 35% greater than those of the other three eggs (42.6 ml) collected that year. Aging the embryos against a reference collection of embryos of American Kestrels (*Falco sparverius*) indicated that one embryo was about 22 days old and the other was about 24 days old. Two distinct yolks were present but that of the younger embryo was considerably more deteriorated and decomposed. Although the embryos had survived well into the fourth quarter of incubation, one had died and may have polluted the egg sufficiently to cause death of the second embryo. Romanoff and Romanoff (1972) found two peaks of mortality in twin chicken embryos, one about one-third of the way through incubation and the other near hatching. The second peak appeared to be related to difficulty in pipping caused by either rupture of the yolk sac or the inverted position.

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## RECENT PUBLICATIONS

**Birds New to Britain and Ireland.**—J. T. R. Sharrock, ed. and P. J. Grant. 1983. T & A D Poyser, Calton, England. 263 p., with 16 unnumbered pages of photographs. \$25.00. Source: Buteo Books, P.O. Box 481, Vermillion, SD 57069. The first-record accounts of 83 species new to Britain and Ireland since 1946, are reprinted here from the pages of *British Birds*. The original accounts are thoroughly updated by addition of current status, distribution maps, and supplements to the original descriptions, including comparative field marks among similar species with emphasis on points not covered in the originals. The accounts attain an excellent standard of skillful and thorough field observation and reporting of information. Black-and-white drawings, paintings and field sketches. Charming essays by British naturalists. Generalized range maps of breeding distribution. Editor's introduction and summary. References, index.—J. Tate.

**Scans Key to Birdwatching.**—Virginia C. Holmgren. 1983. Timber Press. 176 p. Paper cover. \$12.95. Source: Timber Press, P.O. Box 1631, Beaverton, OR 97075. Considerable knowledge and long field experience are evident in this oversize paperback on bird identification. Written by a Westerner, the "similar species" section of many species descriptions provides valuable perspective. From the overly enlarged cover photograph to the poorly registered color plates, however, the production of the book detracts from its value. A beginning birdwatcher might well gain new

information about birds, but would need another field guide in order to provide acceptable illustrations and range maps.—J. Tate.

**A.B.A. Checklist: Birds of Continental United States and Canada: Second Edition.**—ABA Checklist Committee, G. Stuart Keith, Chairman. 1982. 90 p. Paper cover. \$8.25 ABA members, \$9.00 non-members; plus \$2.25 handling. Source: American Birding Association, Inc., P.O. Box 4335, Austin, TX 78765. The body of the text is a checklist of birds in North America north of Mexico. For lists, it provides a space to check off each species and a short line (presumably for indicating where the bird was seen), printed in large, clear type. Cooperation with the AOU Committee on Classification and Nomenclature has brought the present checklist into close harmony with the latest AOU *Check-list*. The ABA booklet includes a "Summary of Records of Accidental and Other Species" (p. 56-80), a complete listing, with references of all occurrences of accidental species in North America. The ABA Committee persists, however, in accepting questionable sight records with little regard for self-discipline. A clear statement of how the process of documentation and sight-record verification works (see *Birds New to Britain and Ireland*, reviewed below, for an outstanding example of this process) would go far toward bringing the ABA checklist into wider acceptance. References, blank pages for supplements and notes.—J. Tate.