

IN MEMORIAM: WILLIAM ROWAN

BY W. RAY SALT

PROFESSOR William Rowan, who became an Associate of the American Ornithologists' Union in 1920, a Member in 1927, and a Fellow in 1950, died at Edmonton, Alberta, on June 30, 1957. He was born in Basle, Switzerland, on July 29, 1891. Much of his early life was spent in England but in 1908 he came to Canada and worked for a time as a ranch hand in Alberta. He soon returned to England, however, to continue his formal education. This was interrupted by a period of army service during the First World War but after his discharge as a casualty he graduated in University College, London, with the B.Sc. degree in 1917. He had early shown an interest in nature and his undergraduate work had been largely in the field of biology. In 1919 he went to the University of Manitoba to lecture in zoology and, the following year, came to the University of Alberta at Edmonton as a member of the department of biology. In 1921 he became the sole member of the newly-organized department of zoology, a department which he developed and headed until his retirement in 1956.

When he arrived in Alberta, Rowan already had a good knowledge of British birds and great enthusiasm for ornithological studies. With C. G. Harrold of Winnipeg he spent several years observing the migrating waders which stopped in great variety and incredible numbers at Beaverhills Lake east of Edmonton. He accumulated a fine collection of skins and considerable new information, much of which he published in "British Birds" between 1926 and 1929. This series of articles, "Notes on Alberta Waders included on the British List," carries illustrations by the author which are excellent examples of his skill with a pencil. During the same period he was also carrying on in his own back-yard the initial experiments which ultimately brought him fame as an experimental ornithologist. By subjecting birds to increasing or decreasing amounts of artificial light he showed that the cyclical development of their gonads is dependent upon seasonal fluctuations in day-length and, searching for the secret of migration, he reasoned that a gonadal hormone might be the trigger which sets off an inherent migratory impulse. With this in mind he set up further experiments using first juncos and later crows in an attempt to upset their normal migratory habits. The experiment with crows received wide publicity and made Rowan perhaps Canada's most widely known ornithological figure. In 1928 he returned to London for a year and presented the results of these experiments in a thesis for the D.Sc. degree in University College. "The Riddle of Migration," published in 1931, was an



WILLIAM ROWAN 1891-1957

exposition of his work in a form intelligible to the layman. Recognizing that his results had not been conclusive, he made a few attempts in later years to repeat the experiments with crows, but these were plagued with misfortune and he was never able to complete the work on the scale he had envisioned.

By this time Professor Rowan had lived in Alberta long enough to have witnessed at first hand the remarkable disappearance and recovery of the local populations of rabbits and grouse, and henceforth much of his energy was directed toward studies of these cyclical fluctuations in numbers. An ardent hunter, he felt that a knowledge of "the cycle" was essential to intelligent control of America's game resources if certain species were to be available to the sportsmen of the future. He kept records of numbers, age, sex, and weight of the game birds he shot and encouraged his friends to do the same. He had students working on various aspects of the problem. Such titles as "Canada's Premier Problem of Animal Conservation," *New Biology Series, Penguin Book #9*, 1950, and "Reflections on the Biology of Animal Cycles," *Journal of Wildlife Management*, 18 (1), 1954, indicate the new trend of his interest. At the time of his death he was investigating historical records of fluctuating populations. During summer vacations he spent some time in the field, favoring the wilderness areas north of Edmonton. He investigated at first hand numerous reports of Whooping Cranes nesting in these regions and concluded that some might be reliable.

Over the years Dr. Rowan became a Member of the British Ornithological Union, a Fellow of the Zoological Society of London, and a Fellow of the Royal Society of Canada. In 1946 in recognition of the merits of his research the Royal Society of Canada awarded him the Flavelle Medal. His talents were many. Drawing, sculpture, and music were their particular outlets; in each field he had had a little training and his works were of high quality. His drawing of Whooping Cranes was selected by the postal service for use in their wildlife series of postage stamps. As a naturalist he deplored the modern trend toward abstraction in art. Dr. Rowan's nature talks over the C.B.C. network allowed him opportunity to mix some of his own philosophy with his biological knowledge. During recent years his concern for the future of man, the most intelligent form of life, was reflected in all his talks and writings. Mankind, he felt, was headed towards self-destruction. We may but hope that the art of prophecy was not one of his many gifts.

A wide circle of acquaintances and correspondents grieve the passing of an able ornithologist, but those who had the privilege of observing the many facets of William Rowan's personality in the field, in the

laboratory, or over coffee in his "top-room" at the University, mourn a man whose influence has been felt far beyond ornithological circles.

SELECTED BIBLIOGRAPHY

1918. Notes on the kingfisher (*Alcedon ispida ispida*). Brit. Birds, 11, (10): 218-225.
1922. Some bird notes from Indian Bay, Manitoba. Auk, 39 (2): 224-232.
1922. Ecological note on the birds observed at the biological station of the University of Manitoba. Ecology, 3 (3): 255-260.
1925. Danger in bird traps. Auk, 42 (1): 171-173.
1925. Relation of light to bird migration and development changes. Nature, 115: 494-495.
1925. On the effects of extreme cold on birds. Brit. Birds, 43: 296-299.
1926. Comments on two hybrid grouse and the occurrence of *Tympanuchus americanus americanus* in the province of Alberta. Auk, 43 (3): 333-336.
1926. Notes on Alberta waders included in the British list.
- I. Semipalmated and killdeer plovers. Brit. Birds, 20 (1): 1-10.
- II. Golden and grey plovers. Brit. Birds, 20 (2): 34-42.
- III. Turnstone, Bartram's sandpiper, sanderling, knot and dunlin. Brit. Birds, 20 (4): 82-90.
- IV. Sandpipers. Brit. Birds, 20 (6): 138-145.
1926. On photoperiodism, reproductive periodicity and the annual migrations of birds and certain fishes. Proc. Boston Soc. Nat. Hist., 38: 147-189.
1927. On the effects of extreme cold on birds. Brit. Birds, 20: 253-254.
1927. Details of the release of the Hungarian partridge (*Perdix perdix*) in Central Alberta. Can. Field-Nat., 41: 98-101.
1927. Notes on Alberta waders included in the British list.
- V. Buff-breasted sandpiper. Brit. Birds, 20 (8): 186-192.
- VI. Dowitcher and spotted sandpiper. Brit. Birds, 20 (9): 210-222.
1927. An Alberta aviary. Condor, 29: 133-139.
1927. Migration and reproductive rhythm in birds. Nature, 119: 351-352.
1928. Bird feathers and the antirachitic vitamin D. Nature, 121: 323-324.
1928. Reproductive rhythm in birds. Nature, 122: 11-12.
1928. The scientific aspects of bird-banding. Bull. Northeast. Bird-Band. Assoc., 4 (2): 31-42.
1929. Notes on Alberta waders included on the British list.
- VII. Yellowshank. Brit. Birds, 23 (1): 2-17.
1929. A unique type of follicular atresia in the avian ovary. Trans. Roy. Soc. Canada. 24: 157-164.
1929. Migration in relation to barometric and temperature changes. Bull. Northeast. Bird-Band. Assoc., 5 (3): 85-92.
1929. Experiments in bird migration.
- I. Manipulation of the reproductive cycle: Seasonal histological changes in the gonads. Proc. Boston Soc. Nat. Hist., 39 (5): 151-208.
1930. Experiments in bird migration.
- II. Reversed migration. Proc. Nat. Ac. Sci., 16 (7): 520-525.
1931. The Riddle of Migration. Williams and Wilkins, Baltimore.
1932. Experiments in bird migration.

- III. The effects of artificial light, castration and certain extracts on the autumn movements of the american crow (*Corvus brachyrhynchos*). Proc. Nat. Acad. Sci., 18 (11): 639-654.
1932. The status of the dowitchers with a description of a new subspecies from Alberta and Manitoba. *Auk*, 49 (1): 14-35.
1936. The effect of controlled illumination on the reproductive activities of birds. Kongressbericht d. Weltgefugelkongresses, 1 (16): 142-152.
1937. Effects of traffic disturbance and night illumination on London starlings. *Nature*, 139: 668-669.
1938. London starlings and seasonal reproduction in birds. Proc. Zool. Soc. London, Series A, 108: 51-77.
1938. Light and seasonal reproduction in animals. *Biol. Rev.*, 13: 374-402.
1939. Comments on the gonads of some European migrants collected in East Africa immediately before their spring departure (with A. M. Batrawi). *Ibis*, 3: 58-65.
1945. Homing, migration and instinct. *Science*, 102 (2643): 210-211.
1945. Inheritance and acquired characteristics. *Nature*, 156: 236-237.
1946. Experiments in bird migration. Trans. Roy. Soc. Can., Series 3, Sec. 5, Vol. 40: 123-235.
1947. The moult and gonad cycles of three species of birds at five degrees south of the equator (with R. E. Moreau and A. L. Wilk). Proc. Zool. Soc. London, 117: 345-364.
1947. Migration of Birds. Encyclopaedia Britannica.
1948. The ten-year cycle. Dept. Extension Publ., Univ. Alberta.
1950. Canada's premier problem of animal conservation. *New Biology*, 9: 38-57.