

1937

Effects of Anterior Pituitary Thyrotropic Hormone in the House Sparrow, *Passer domesticus* (Linnaeus)

Dorothea Starbuck Miller
State University of Iowa

Let us know how access to this document benefits you

Copyright ©1937 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Miller, Dorothea Starbuck (1937) "Effects of Anterior Pituitary Thyrotropic Hormone in the House Sparrow, *Passer domesticus* (Linnaeus)," *Proceedings of the Iowa Academy of Science*, 44(1), 208-208.

Available at: <https://scholarworks.uni.edu/pias/vol44/iss1/95>

This Research is brought to you for free and open access by the IAS Journals & Newsletters at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Offensive Materials Statement: Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

EFFECTS OF ANTERIOR PITUITARY THYROTROPIC
HORMONE IN THE HOUSE SPARROW, *PASSER*
DOMESTICUS (LINNAEUS)

DOROTHEA STARBUCK MILLER

Previous studies have shown that thyroxin injections cause definite color changes in the plumage of the male sparrow.

Attempts have been made to induce hyperthyroidism by stimulating the thyroids with injections of thyrotropic hormone extracted from sheep anterior pituitary. Microscopic studies of the thyroid glands and measurement of the metabolic rate indicate that a hyperthyroid condition has been produced. However, no modifications in plumage have been noted following varying doses of thyrotropic hormone or combined injections of thyroxin and thyrotropic hormone.

DEPARTMENT OF ZOOLOGY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

COMPARATIVE EFFECTS OF LIGHT STIMULATION
AND ADMINISTRATION OF GONADOTROPIC
HORMONES ON FEMALE SPARROWS

G. M. RILEY

Female sparrows (*Passer domesticus*) were subjected to increased daily periods of illumination at different times during the fall and winter. In every instance the effect upon the ovary was very slight. On the other hand, the ovaries respond to injections of gonadotropic hormones at any time during the sex cycle. The development approaches that attained at the height of the breeding season. The results indicate that it is not a refractoriness of the ovary which explains the non-effect of light during the fall and winter, but rather the failure of the anterior pituitary to release the essential hormones. Contrary to the situation in the male sparrow, the pituitary of the female responds little to light stimulation.

DEPARTMENT OF ZOOLOGY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.