

Proceedings of the Iowa Academy of Science

Volume 40 | Annual Issue

Article 12

1933

The Somatic Chromosomes of *Cypridium hirsutum* and Six Species of *Habenaria*

L. M. Humphrey
Iowa State College

Copyright © Copyright 1933 by the Iowa Academy of Science, Inc.
Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Humphrey, L. M. (1933) "The Somatic Chromosomes of *Cypridium hirsutum* and Six Species of *Habenaria*," *Proceedings of the Iowa Academy of Science*, 40(1), 75-75.
Available at: <https://scholarworks.uni.edu/pias/vol40/iss1/12>

This Research is brought to you for free and open access by the Iowa Academy of Science 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.

the sum of oxygen and carbon dioxide was 20.9, the normal oxygen content of the atmosphere.

The respiration quotient of Carrington loam under various treatments was determined, using a Haldane microgas analysis apparatus for the measurements. The average respiration quotient for untreated Carrington loam was 0.87; for Carrington loam treated with cellulose 0.83; and for Carrington loam treated with dextrose 1.27.

IOWA STATE COLLEGE,
AMES, IOWA.

THE SOMATIC CHROMOSOMES OF *CYPRIPEDIUM* *HIRSUTUM* AND SIX SPECIES OF *HABENARIA*

L. M. HUMPHREY

The chromosome numbers of eight species of the *Orchidaceae* were reported last year. The purpose of this paper is to report seven more species. The material was collected in Minnesota and Massachusetts. The following numbers were found: *Cypripedium hirsutum*, $2n = 20$; *Habenaria blephariglottis*, $2n = 42$; *H. clavellata*, $2n = 42$; *H. dilatata*, $2n = 42$; *H. Hookeri*, $2n = 42$; *H. hyperborea*, $2n = 42$; and *H. obtusata*, $2n = 42$. The size relationships are the same as in the species studied last year. The *Cypripedium* has very large chromosomes, and the *Habenarias* relatively very small ones.

DEPARTMENT OF BOTANY,
IOWA STATE COLLEGE,
AMES, IOWA.

THE EFFECTS OF EXFLORATION ON THE SOYBEAN

STANLEY AUSTIN

Most of the literature on growth and reproduction in plants leaves the implication that cessation of vegetative activity in plants of an indeterminant type of growth is due to the drain of nutrient materials imposed on the plant by the developing fruits. This is not true for the soybean. The variety used in this investigation flowers early and continues to grow for some time afterward and