



BIOLOGY

MAR 19 1979

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

JUL 26 1966







1  
pages

# FIELDIANA: BOTANY

*A Continuation of the*  
BOTANICAL SERIES

*of*

FIELD MUSEUM OF NATURAL HISTORY

---

VOLUME 31

The Library of the

JAN 18 1979

— Gerald-Granger



FIELD MUSEUM OF NATURAL HISTORY  
CHICAGO, U. S. A.





580.5

FB

v. 3!

Biol.

## TABLE OF CONTENTS

	PAGE
1. Two New Species of Palms from Nicaragua. By S. F. Glassman . . . . .	1
2. Tropical American Plants, VI. By Louis O. Williams . . . . .	11
3. Agriculture, Tehuacan Valley. By C. Earle Smith, Jr. . . . .	49
4. Flora, Tehuacan Valley. By C. Earle Smith, Jr. . . . .	101
5. Preliminary Studies in the Palm Genus <i>Syagrus</i> Mart. and Its Allies. By S. F. Glassman . . . . .	145
6. Tropical American Plants, VII. By Louis O. Williams . . . . .	165
7. Supplement to Orchids of Guatemala. By Donovan S. Correll . . . . .	175
8. Preliminary Notes on Scrophulariaceae of Peru. By Gabriel Edwin . . . . .	223
9. New Species in the Palm Genus <i>Syagrus</i> Mart. By S. F. Glassman . . . . .	233
10. Tropical American Plants, VIII. By Louis O. Williams . . . . .	247
11. Notes on the Flora of Costa Rica, I. By William C. Burger . . . . .	273
12. A New <i>Eurystyles</i> from Nicaragua. By Alfonso H. Heller . . . . .	279
13. New Species in the Palm Genus <i>Syagrus</i> Mart. By S. F. Glassman . . . . .	285
14. A Revision of the Family Geastraceae. By Patricio Ponce de Leon . . . . .	303
15. Studies in American Plants. By Dorothy N. Gibson . . . . .	353
16. Two New Nicaraguan Juglandaceae. By Antonio Molino R. . . . .	357
17. Studies in the Palm Genus <i>Syagrus</i> Mart. By S. F. Glassman . . . . .	363
18. Tropical American Plants, IX. By Louis O. Williams . . . . .	401



3  
31  
11-14

NOTES ON THE FLORA OF COSTA RICA, I  
WILLIAM C. BURGER

---

A NEW *EURYSTYLES* FROM NICARAGUA  
ALFONSO H. HELLER

---

NEW SPECIES IN THE PALM GENUS  
*SYAGRUS* MART., II

S. F. GLASSMAN

---

A REVISION OF THE FAMILY GEASTRACEAE  
PATRICIO PONCE DE LEON

JUL 15 1968

FIELDIANA: BOTANY  
VOLUME 31, NUMBERS 11, 12, 13, 14  
FIELD MUSEUM OF NATURAL HISTORY  
FEBRUARY 22, 1968  
*University of Illinois*

JUL 11 1968

BIOLOGY LIBRARY  
FIELD MUSEUM







A NEW *EURYSTYLES* FROM  
NICARAGUA

ALFONSO H. HELLER

*Associate, Field Museum of Natural History*

FIELDIANA: BOTANY

VOLUME 31, NUMBER 12

*Published by*

FIELD MUSEUM OF NATURAL HISTORY

FEBRUARY 22, 1968

PUBLICATION 1037

*Library of Congress Catalog Card Number: 67-31600*

PRINTED IN THE UNITED STATES OF AMERICA  
BY FIELD MUSEUM PRESS



## A New *Eurystyles* From Nicaragua

The orchidaceous genus *Eurystyles* of the "Spiranthinae" is one of the three genera of this group which Dr. Williams maintained in his *Enumeration of the Orchidaceae of Central America, British Honduras and Panama* (1956). In this work and in his previous ones he took a most conservative view of generic limits in the group.

The generic placement of the present species offers some difficulties for it shows some characters which indicate that it might belong in *Lankesterella*—for example, obsolete rostellar processes. However, the majority of characters point to *Eurystyles*.

The geographical origin of this species is of interest. It is the most northern of the half dozen or so species of the genus. Two species are known from Costa Rica and the remaining ones in the genus are South American. Although the distance from the habitats of the known Central American species in Costa Rica is not great, the actual biological break represented by the low San Juan depression, between Costa Rica and Nicaragua, is a rather more formidable one than the actual distance in miles would indicate.

### *Eurystyles borealis* Alfonso H. Heller, sp. nov.

Herbae epiphyticae parvae usque ad 3 cm. altae. Folia elliptica vel obovata, apiculata, breviter petiolata, in vivo vernicosa; inflorescentia capitata, usque ad 25-flora; sepalum dorsale elliptico-lanceolatum, acutum; sepala lateralia lineari-lanceolata, acuta, bases subscrotiformae; petala lineari-spathulata, obtusa; labelum spathulatum, trilobulatum, basis angustata; rostellum nullum.

Small epiphytic plants to 3 cm. tall. Stems none or very much reduced; roots white, to 2 cm. long and 3 mm. in diameter, obscurely pubescent on the underside; leaves basil, elliptic to obovate, apiculate, short petiolate, strikingly vernicose when living (but not visible in the dried type), margins undulate in living material and obscurely crenulate, shortly and obscurely ciliate, 15–27 mm. long and 8–16 mm. broad; inflorescence congested and capitate, borne on a bracteate, pilose pedicel 1–2 cm. long, flowers about 25 or fewer, the head of flowers about 1.5 cm. long and broad; flowers white, sessile, about 6 mm. long, subtended by ovate, acuminate, fimbriate-ciliate, pubescent bracts to 1 cm. long and about as broad when spread; ovary to about 2 mm. long; sepals with echinate pubescence dorsally above the

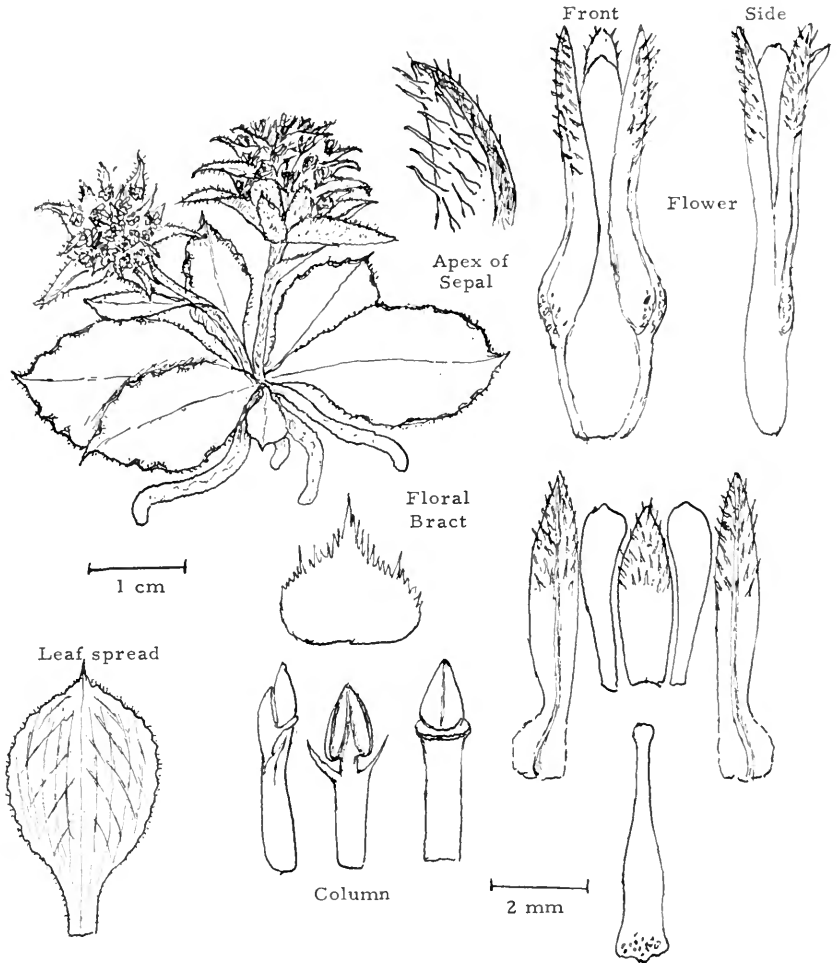


FIG. 1. Habit and expanded leaf natural size. Flowers and floral dissections  $\times 10$ . Drawn from living material by A. H. Heller.

middle, dorsal sepal elliptic-lanceolate, acute, about 3.5 mm. long and 1 mm. broad, lateral sepals linear-lanceolate, slightly enlarged and obscurely scrotiform at the base in living material, about 6 mm. long and 1 mm. broad; petals free or lightly adnate to the lateral sepals, linear-spathulate, obtuse, oblique, about 3.5 mm. long and 1 mm. broad; lip spathulate, broadest and trilobulate at the apex, narrowed to a linear claw at the base, obscurely verruculose at the apex; column about 4.5 mm. long, with two porrect teeth below the anther, rostellum obsolete.

NICARAGUA: epiphyte in forest, Cerro Villa Flor, about 2 km. south of Honduras border, Dept. Nueva Segovia, December 28, 1966, *Heller 10861* (type in Field Museum of Natural History).

*Eurystyles borealis* differs from the known species of the genus in lacking a rostellar process. It differs from *E. standleyi* Ames and *E. auriculata* Schltr., the other Central American species, in lacking basal auricles on the lip. It is the northernmost species of the genus and the only one north of the San Juan depression.



















UNIVERSITY OF ILLINOIS-URBANA

580 5FB

CD01

FIELDIANA, BOTANYSCHICAGO

31 1-18 1964-68



3 0112 009379139