

BIOLOGY

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VOLUME 31

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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

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BIOLOGY

TWO NEW SPECIES
OF PALMS FROM NICARAGUA

12 1965

S. F. GLASSMAN

and

TROPICAL AMERICAN PLANTS, VI

LOUIS O. WILLIAMS

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FIELDIANA: BOTANY

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NOVEMBER 25, 1964

TWO NEW SPECIES
OF PALMS FROM NICARAGUA

S. F. GLASSMAN

Professor of Biology, University of Illinois and Research Associate

FIELDIANA: BOTANY

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CONTENTS

	PAGE
<i>Euterpe williamsii</i>	5
<i>Geonoma molinae</i>	7

LIST OF ILLUSTRATIONS

TEXT FIGURES

1. <i>Euterpe williamsii</i>	6
2. <i>Geonoma molinae</i>	8

Two New Species of Palms from Nicaragua

During a recent trip to Nicaragua, Dr. Louis O. Williams, Mr. Antonio Molina R. and Mrs. Terua P. Williams collected several numbers of palms. Among these are two new species which are described below. Holotypes are deposited in Chicago Natural History Museum (F) and isotypes are located in the Escuela Agrícola Panamericana (EAP), Zamorano, Honduras. Illustrations included in this article were made by Mr. Sam Grove and Mr. Robert J. Anderson, artists on the Museum staff, to whom the writer is most grateful.

Euterpe williamsii Glassman, sp. nov. Figure 1.

Palma 2 m. alta; truncus solitarius, gracilis; folia ca. 1.73 m. longa; petiolus 71 cm. longus, supra anguste canaliculatus, carinatus in dorso, omnino pallide fusco-leprosus; pinnae 16 in utroque rachidis latere, longo-lanceolatae, infimae angustae, 27 cm. longae, 1.4 cm. latae, maximae 39 cm. longae, 3 cm. latae, summae 34 cm. longae, 5 cm. latae, utrinque subconcoloriae, apices longo-acuminati; spadix 78 cm. longus, pars ramosa 20 cm. longa; rami 6, 19 cm. longi; pedunculus et rachis fusco-leprosus; spathe 79.5 cm. longa, 2.5 cm. lata; florum glomeruli permultum, vix immersum; flores staminati 4-5 mm. longi, 2-2.5 mm. lati, filamenta apice geniculata, supra teniora; flores pistillati 1.5-2 mm. longi, 1.5 mm. lati.

Palm 2 m. tall; trunk solitary, slender; leaves about 1.73 m. long; petiole 71 cm. long, narrowly channeled above, keeled underneath, covered with patches of pale brownish hairs; leaflets 16 on either side of the rachis, long-lanceolate, lowermost narrow, 27 cm. long, 1.4 cm. wide, main ones 39 cm. long, 3 cm. wide, uppermost leaflets 34 cm. long, 5 cm. wide, lighter green on lower surface, with long acuminate tips; spadix 78 cm. long, branched part 20 cm. long, branches 6, up to 19 cm. long, peduncle and rachis branches covered with patches of brownish hairs; spathe 79.5 cm. long, 2.5 cm. wide; flower glomerules numerous, consisting of two male and one female flowers, scarcely immersed in shallow cavities; male flowers 4-5 mm. long, 2-2.5 mm. wide, petals more or less acuminate, apex of filaments geniculate, attenuate; female flowers 1.5-2 m. long, 1.5 mm. wide.

NICARAGUA: Dept. Matagalpa, Cordillera Central de Nicaragua, along road to La Fundadora, cloud forest area, 1300-1400 m., Feb. 23, 1963, 24922.

Another specimen (24918) collected in the same locality and consisting of a leaf and part of a fruiting branch, is apparently the same species. The following description of the fruiting stage is added to

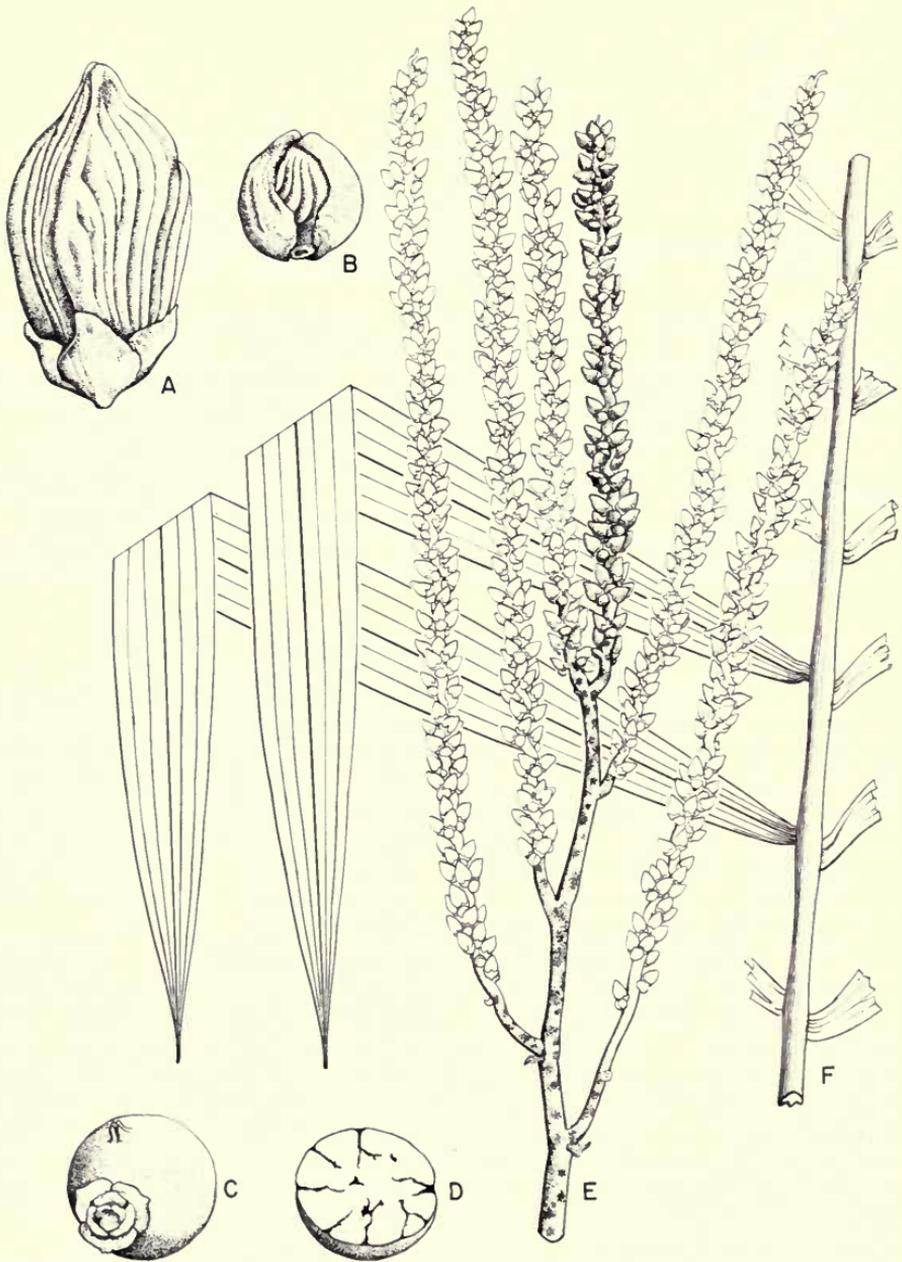


FIG. 1. *Euterpe williamsii* Glassman (A, B, E, F from Williams, Molina and Williams 24922; C, D from 24918). A, Male flower; $\times 25$. B, Female flower; $\times 25$. C, Mature fruit; $\times 5$. D, Cross section of fruit and seed showing ruminant endosperm; $\times 5$. E, Branched portion of flowering spadix; $\times 2$. F, Middle part of leaf showing pinnae; $\times 1$.

the new species: fruiting branches 5 (one broken off), 9–11 cm. long; fruit dark brown, depressed globose, up to 10 mm. long and 11 mm. in diameter, stigmatic scar lateral, exocarp thin, papery, mesocarp fibrous, endocarp thin; seed white inside, depressed-globose, up to 6.5 mm. long and 7 mm. in diameter, endosperm ruminant.

Euterpe williamsii falls into the tribe *Leiostachys* Burret which is characterized by scarcely immersed flowers and fruits, male flowers with more or less acuminate petals and filaments with geniculate and attenuate tips. It seems to be most closely related to *E. brachyspatha* Burret from Costa Rica, especially in the short (less than 20 cm. long) and relatively few spadix branches (about 6), and approximately the same number of pinnae (16–17) on each side of the rachis. *E. williamsii* differs from this taxon in having a spathe exceeding the spadix rather than a spathe shorter than the spadix, larger fruits (10 mm. by 11 mm. rather than 7 mm. x 8 mm.) and larger seeds (6.5 mm. by 7 mm. rather than 5 mm. by 6 mm.).

Geonoma molinae Glassman, sp. nov. Figure 2.

Palma 2 m. alta; folia ca. 1.29 m. longa, inaequaliter pinnata; petiolus 39 cm. longus, supra anguste canaliculatus, carinatus in dorso; pinnae falcatae, apice angusto-acuminati, segmentum apicale 38 cm. longum, 8 cm. latum, nervi primarii 12, segmentum medium 48 cm. longum, 11 cm. latum, infimum angustum, 25 cm. longum, 2 cm. latum; spadix ca. 50 cm. longus, semel-ramosus, pars ramosa 22 cm. longa; rami 7, 19 cm. longi, 3–3.5 mm. in dia.; foveae spiraler, in seriebus 5–7, ejusdem seriei sequentes inter partes aequales 9–16 mm. fere dissitae, bilabatae, labio inferiore protracto; flores staminati 3 mm. longi; fructus globosus, 10 mm. longus, 9 mm. latus, apex apiculatus, glaber, papillatus; semen 6 mm. longum, 6 mm. latum.

Palm 2 m. tall; leaves about 1.29 m. long, unequally pinnate; petiole 39 cm. long, narrowly channeled above, keeled underneath; pinnae mostly glabrous, falcate, with narrowly acuminate tips, terminal segments 38 cm. long, 8 cm. wide, primary nerves 12, middle segments 48 cm. long, 11 cm. wide, lowermost segments narrow, 25 cm. long, 2 cm. wide; spadix about 50 cm. long, once branched, branched part 22 cm. long; branches 7, 19 cm. long, 3–3.5 mm. in dia.; pits arranged spirally in 5–7 series, 9–16 mm. apart between pits in the same series, bilabiate, lower lip protracted; staminate flowers 3 mm. long, fruit globose, 10 mm. x 9 mm., apex apiculate, glabrous, strongly papillose; seed 6 mm. x 6 mm.

NICARAGUA: Dept. Matagalpa, Cordillera Central de Nicaragua, Santa María de Ostuma, between Matagalpa and Jinotega, dense forest, 1300–1500 m., Jan. 8, 1963, 23507.

Another specimen (24980), also collected in the Department of Matagalpa, along road to Fundadora, apparently belongs here, too; however, the lowermost spadix branch is twice branched and there

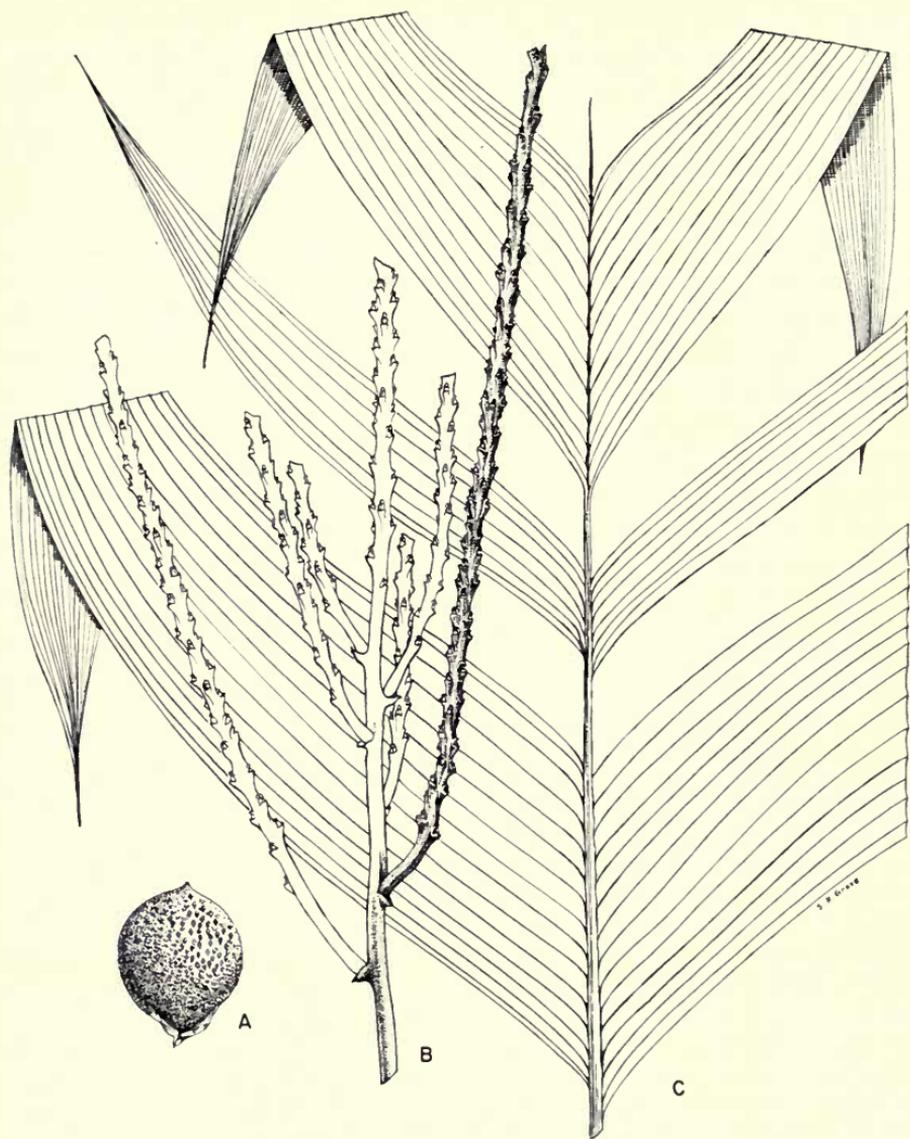


FIG. 2. *Geonoma molinae* Glassman (from 23507). A, Mature fruit; $\times 5$. B, Branched portion of flowering spadix; $\times 2$. C, Upper part of leaf showing pinnae; $\times 1$.

are 8-9 primary branches rather than 7. Other minor differences which may fall within the range of variability are: flowers 3.5 mm. long and differences in the width of the various pinnae.

Geonoma molinae seems to be most closely related to *G. polynura* Burret from Guatemala, especially in the length of the spadix

branches, the arrangement of the bilabiate pits and the size of the flowers. It differs from *G. polyneura* in the fewer spadix branches (7-9 rather than 10-13) which are once branched or only the lowermost twice branched rather than twice branched throughout; the wider spadix branches (3-3.5 mm. rather than 2-2.5 mm.) and the glabrous rachis and primary nerves of the lower leaf surface rather than floccose-ciliate rachis and nerves are other differences.

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