

A NEW SPECIES OF *ENCYCLIA* HOOK. (ORCHIDACEAE)
FROM THE CAICOS ISLANDS, B.W.I.

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While gathering data for a taxonomic and ecological treatment of the orchids of the Bahama Islands, we found herbarium specimens at AMES, F, and NY which appeared to represent an undescribed species of *Encyclia*. The results of subsequent field studies on the Caicos Islands supported our initial impressions.

Specimens of this species were first collected on the Caicos Islands in 1911 by Millspaugh and Millspaugh and were incorrectly identified as *Epidendrum diurnum* (Jacq.) Cogniaux, an epithet subsequently transferred to *Encyclia diurna* (Jacq.) Britton and Millspaugh and applicable to a South American species which is distinct from this species.

Encyclia caicensis Sauleda and R. M. Adams, sp. nov. (Figure 1)

Planta epiphytica, usque ad 260 cm alta; pseudobulbi aggregati, erecti, lineari-lanceolati, usque ad 45 cm longi; folia 2-4, coriacea, interdum rigida, erecta, lineari-lanceolata, acuta, usque ad 60 cm longa, 3.0 cm lata; inflorescentia terminalis usque ad 215 cm longa, supra paniculata, 20-60 floribus ascendentibus; pedunculus gracilis, erectus, distincte plurivaginatus, bractee ovatotriangulares, acutae, 2.0-3.0 mm longae; ovarium pedicellatum, gracile; sepala elliptica, acuta, 1.4-1.8 cm longa, 4.0-7.0 mm lata; labellum 1.5-1.9 cm longum, 1.5-1.9 cm latum, liberum, trilobum; lobi laterales ovoidei, obtusi, erecti; lobus intermedius orbicularis; columna abbreviata; auriculae incurvae, rotundatae, 7.0-8.0 mm longae.

Plant epiphytic, rarely lithophytic, rhizomatous, to 260 cm tall. Roots, numerous, slender to thick, velamentous. Primary stem or rhizome short, stout, creeping or ascending, enclosed by scarious imbricating sheaths. Secondary stems modified into pseudobulbs, erect, clustered, distinctly elongated, attenuate, linear-lanceolate, to 45 cm long, 5 cm thick, enclosed by scarious imbricating sheaths, 2-4 leaved at apex. Leaves coriaceous to rigid, erect, linear to linear-lanceolate, acute, to 60 cm long, 3.0 cm wide. Inflorescence terminal, to 215 cm tall, peduncles slender, erect distinctly several-sheathed, paniculate above, lateral branches stiff and erect, 20-60 ascending flowers. Floral bracts broadly ovate-triangular, acute, 2.0-3.0 mm long, 2.0-4.0 mm wide. Ovary pedicellate, slender, 2.2-2.8 cm long. Sepals greenish-yellow to tan suffused and/or striped with reddish-brown, elliptical, acute, 1.4-1.8 cm long, 4.0-7.0 mm wide. Petals greenish-yellow to tan with reddish-brown suffusion or striping, obovate, acute, 1.5-1.6 cm long, 3.0-5.0 mm wide. Labellum free, 3-lobed, white to yellowish with radiating reddish-purple stripes, 1.5-1.9 cm long, 1.5-1.9 cm wide; lateral lobes yellow, orbicular to ovoid, obtuse, erect, embracing column; midlobe with yellowish margin, orbicular, apically recurved; callus distinctly white with reddish-purple stripes, composed of two erect, decurrent lateral keels uniting at midlobe. Column white to greenish-white, streaked with purple, short, blunt with membranous, incurved, rounded auricles, 7.0-8.0 mm long, 3.5-5.0 mm wide; anther cap yellow. Capsule pendant, 2.6-2.8 cm long, 1.8-2.1 cm wide.

ETYMOLOGY: Named for the type location, Caicos Island, British West Indies.

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TYPE: *SOUTH CAICOS*, B.W.I.: 200 m S.E. of airport runway, large clump growing epiphytically on *Pithecellobium bahamense* Northrop, 11 Feb. 1978, in flower, R. P. Sauleda, R. M. Adams, P. H. Adams, and D. S. Correll 2031 (HOLOTYPE: NY, ISOTYPES: AMES, K, SEL, US).

ADDITIONAL MATERIAL EXAMINED: *SOUTH CAICOS*, B.W.I.: near type locality, S.E. of runway along roadside, epiphytic, 11 Feb. 1978, in flower, Sauleda et al. 2026 (FTG), 2027 (P), 2028 (LE), 2029 (F), 2030 (S). *MIDDLE CAICOS*, B.W.I.: Moujean Harbor, on top of ridge, growing lithophytically, 11 Feb. 1978, in flower, Sauleda et al. 2045 (FAU).

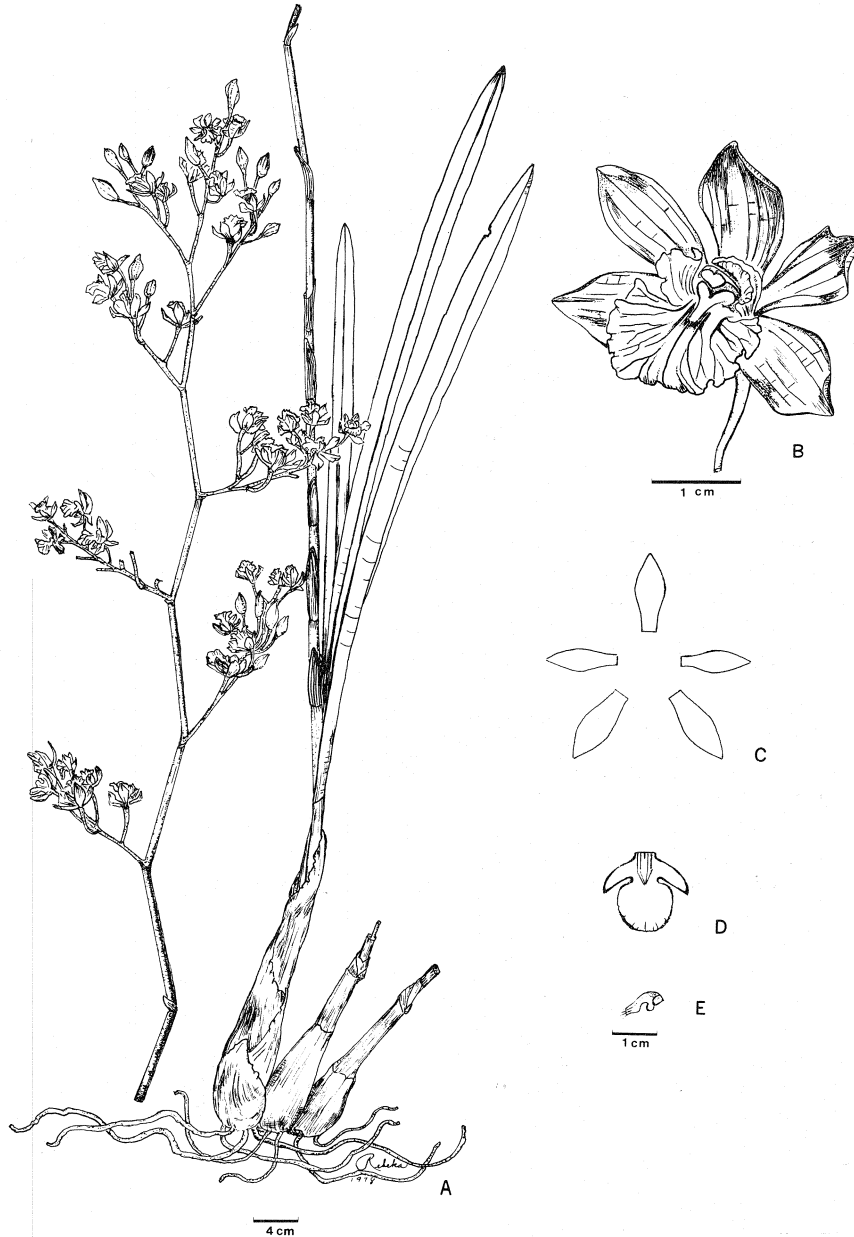


Figure 1. *Encyclia caicensis* Sauleda and R. M. Adams. A, flowering plant; B, flower, frontal view; C, sepals and petals, frontal view; D, labellum, frontal view; E, column, lateral view.

NORTH CAICOS, B.W.I.: Horse stable, near road to Whitby, epiphytic on dead palm trunk, 12 Feb. 1978, in flower, *Sauleda et al.* 2046 (BM); Whitby's Landing and vicinity 28 Feb. - 2 March 1911, *Millspaugh and Millspaugh* 9168 (F); between Bottle Creek and Whitby, epiphytic on palms near beach, 24 April 1954, *Lewis s.n.* (AMES). *AMBERGRIS CAY, CAICOS GROUP, B.W.I.*: 12 March 1911, *Millspaugh and Millspaugh* 9299, 9304 (F, NY). *LITTLE AMBERGRIS CAY, CAICOS GROUP, B.W.I.*: 13 March 1911, *Millspaugh and Millspaugh* 9319 (F, NY). *DELLIS' CAY, CAICOS GROUP, B.W.I.*: 4 March 1911, *Geo. Dellis* 1 (F).

DISTRIBUTION: Caicos Islands.

REPRODUCTIVE PERIOD: January to April.

ECOLOGY: On islands in the Caicos Group this heliophilic species is abundant growing epiphytically on *Pithecellobium bahamense* Northrop, *Pithecellobium guadalupense* (Pers.) Cham., *Coccoloba tenuifolia* L., *Coccoloba uvifera* (L.) Jacq. and *Coccothrinax argentata* (Jacq.) L. H. Bailey and rarely lithophytically on pleistocene limestone. The habitats in which it is found are (1) rock scrub; a xeric, open, limestone-based scrub habitat, dominated by dwarfed specimens of *Coccoloba uvifera*, *Coccoloba tenuifolia*, *Bursera simaruba* L., *Guaiacum officinale* L., *P. bahamense* and *Leucaena leucocephala* (Lam.) DeWit and (2) Beach dune (leeward); a xeric, open, sandy scrub habitat dominated by *Coccothrinax argentata*, *Coccoloba uvifera*, *L. leucocephala*, *Erithalis fruticosa* L., *Psidium longipes* (Berg) McVaugh, *Reynosia septentrionalis* Urban and *Eugenia foetida* Pers.

SIMILAR SPECIES: *Encyclia caicensis* is similar to and may be confused with *Encyclia hodgeana* (Hawkes) Beckner and non-reproductive plants of *Encyclia inaguensis* (Nash) Britt. & Millsp.

Encyclia caicensis differs from *E. hodgeana* vegetatively, by having narrower and more rigid and erect leaves. Florally, these two species differ significantly. The inflorescence of *E. caicensis* has shorter and more numerous lateral branches which are distinct in their ascending habit. The flowers are smaller, more numerous and more tightly clustered than in *E. hodgeana*. The cupped shape and ascending habit of the flowers of *E. caicensis* further separate it from its sympatric congener, *E. hodgeana*. Furthermore, the labellum is not as deeply three-lobed, the labellum apex (disc) distinctly more recurved, and the column disproportionately shorter in *E. caicensis* than in *E. hodgeana*.

Encyclia inaguensis has distinctly narrower leaves than immature and small specimens of *E. caicensis* (and *E. hodgeana*) with which it might be confused. All three species have large sympatric populations occurring on the Caicos Islands.

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