

A NEW HAWAIIAN GAHNIA (CYPERACEAE)

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Gahnia lanaiensis O. & I. Degener & Kern, *spec. nov.* — Sect. *Gahnia*. — Fig. 1.

Herba perennis. *Rhizoma* breve, crassum, lignosum, squamis castaneis striatis obtectum. *Culmi* elati, usque ad 3 m alti, 2—4 mm crassi, teretes, glabri, usque ad apicem foliati et fere per totam longitudinem in vaginis foliorum absconditi. *Folia* culmum superantia, cinereo-viridia, tenacia, margine involuta, e basi dilatata 6—9 mm lata in acumen longissimum apice setaceo-caudatum scabrum gradatim angustata; vaginae longae, inferiores spadiceae vel atrofuscae, superiores stramineae; ligula angusta, rotundata vel in foliis superioribus triangularis, glabra, castanea. *Inflorescentia* paniculata, erecta, perangusta, (15—)30—50 cm longa, 1—2(—3) cm lata, interrupta, e fasciculis 5—7 panicularum partialium elongato-oblongarum satis densarum constructa; rami 2—3-nim fasciculati, stricte erecti, inferiores ad 8 cm, superiores ad 2 cm longi. *Bracteae* inferiores foliis similes, inflorescentiam superantes, erectae, longe vaginantes, superiores gradatim decrescentes. *Spiculae* numerosae, oblongae, c. 7 mm longae, 2 mm latae, uniflorae, breviter pedunculatae; pedunculi scabri. *Glumae* 4, diffformes: exteriores 2 vacuae, lanceolatae, acutae, acuminato-aristatae, carinatae, carina scabrae, resp. 6½ et 7 mm longae, nucem superantes, interiores 2 ovatae vel oblongo-ovatae, concavae, apice obtusae, margine apice ciliolatae, 4 mm longae, florem hermaphroditam arcte includentes. Perigonium nullum. *Stamina* 4; filamenta post anthesin persistentes, elongata, inter se et cum stylo intertexta, basi nucis affixa, nucem maturam delapsam retentia. *Stylus* tenuis, c. 3 mm longus, stigmatibus 3 filiformibus c. 8 mm longis. *Nux* dura, obtuse trigona, fusiformis, apice basi que acuminata, laevis, demum nigra, nitens, 4—5 mm longa, 1½—2 mm lata; endocarpium transverse annulato-sulcatum, sulcis 5—6.

HAWAII. Lanai, east of Munro trail and north of Lanai-hale, in shrubby rain-forest at 3000 ft, Sept. 4, 1963, end of flowering season, culms up to 3 m high where supported by neighbouring bushes, *Otto & Isa Degener 28431* (L, type); West edge of Munro trail at Lanai-hale, open scrubby fog-belt at 3370 ft, July 23, 1963, end of flowering season, forming 3—10 dm wide tussocks with 3—20 dm, erect-spreading culms, *Otto & Isa Degener 28430* (L); Lanai-hale, in shrubby rain-forest at 3370 ft, young fl., Jan. 7, 1964, *Otto & Isa Degener 28686* (L).

Closely related to *Gahnia melanocarpa* R. Br. from eastern Australia, and agreeing with it in its 1-flowered spikelets with only 4 glumes, the colour of the fruits, the grooved endocarp, and in having the same type of fruit-dispersal ('Flecht-Mechanismus', braiding mechanism). It differs by its very tall, up to 3 m long stems, the less dense panicle, the much larger spikelets, the lanceolate outer glumes which are twice as long and con-

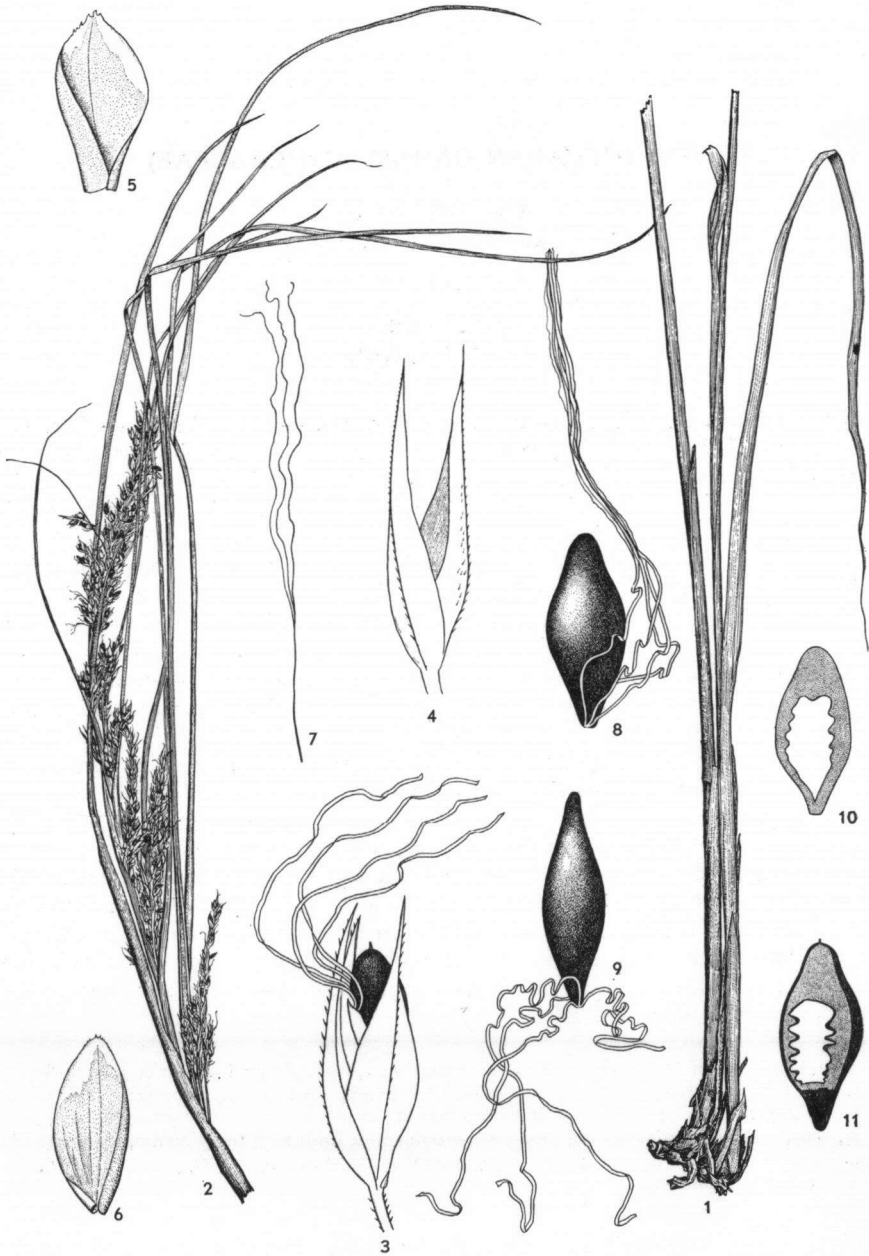


Fig. 1. *Gahnia lanaiensis* O. & I. Degener & Kern — 1. Basal part; 2. inflorescence; 3. spikelet; 4. two outer glumes; 5. third glume; 6. fourth glume; 7. style; 8 & 9. fruits, with attached filaments; 10 & 11. longitudinal sections of fruits (1—2 $\times \frac{1}{2}$; 3—11 $\times 6$; all from Degener 28431).

siderably overtop the inner conchiform glumes, and by the larger, fusiform nut acuminate at both ends. In *G. melanocarpa* the spikelets are subglobose, the two outer glumes ovate, 3 and 3½ mm long respectively, not or hardly longer than the inner glumes. As a rule there are 3 stamens, very rarely in some flowers 4. The nut is ovoid, somewhat truncate at the top, and 3 mm long.

Drs Otto and Isa Degener collected this and many other interesting Lanai species with the aid of a grant from the National Science Foundation (U.S.A.).