273. ULEARUM SAGITTATUM

Peter Boyce

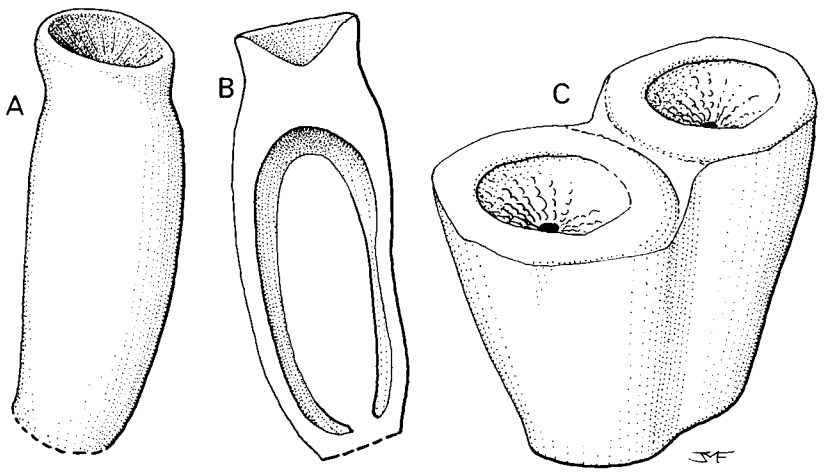
The subject of this plate is a little-known aroid originating from tropical South America. *Ulearum sagittatum* Engl. (Engler, 1905) was based on material collected by the German botanist E.H.G. Ule from the Departamento Loreto in the Amazonian region of Peru. *Ulearum* is one of four genera in the *Zomicarpeae*, a tribe of the subfamily *Aroideae*, the others being *Zomicarpa* Schott (Schott, 1856), *Zomicarpella* N.E. Br. (Brown, 1881) and *Filarum* Nicolson (Nicolson, 1967). The genera are rare in the wild and very seldom seen in cultivation.

Ulearum appears to be most closely related to *Filarum*; both have seeds without endosperm whereas *Zomicarpa* and *Zomicarpella* produce seeds with copious endosperm. *Ulearum* differs from *Filarum* in lacking a conspicuous elongated anther connective and in having a creeping rhizomatous, not tuberous, stem.

The silver-variegated foliage is the most attractive feature of *Ulearum*, since the inflorescences are small and inconspicuous. Many of the aroids which are prized for their colourful and attractive foliage, such as *Caladium* Vent. and *Dieffenbachia* Schott, have soft, thin-textured leaves and are prone to fungal attack and leaf damage in cultivation. *Ulearum*, with its thin but tough-textured leaves, seems more resistant and is not affected by such problems, so it would appear that the plant has considerable horticultural potential.

CULTIVATION. The plants of *Ulearum* at Kew were presented by Josef Bogner of Munich Botanical Garden who received them from an amateur plant enthusiast in Brazil. *Ulearum* is a rain-forest plant and in cultivation requires a high temperature and constant humidity. The plant depicted here is grown permanently in a propagation frame with a minimum night temperature of 20°C and a relative humidity of not less than 65 per cent. Under these conditions *Ulearum* grows well and increases in size quickly. Fertile fruits have been produced sporadically at Kew and young plants have been successfully raised from the seed collected.

Ulearum sagittatum Engl. in Bot. Jahrb. Syst. 37: 95 (1905) (published as 1906). Type: Peru, Dept. Loreto, Shitari Jaco, Pongo de Cainarachi, Sept. 1902, *Ule* 6323 (holotype B!, isotypes B!, K!).



Ulearum sagittatum. A, ovary, × 30; B, ovary, longitudinal section, × 30; C, stamen, three quarter view, × 40. Drawn by Mark Fothergill.

DESCRIPTION. *Rhizomatous, creeping herb* forming loose clumps to 25 cm. *Rhizome* 4–5 mm diam., of indeterminate length, creeping horizontally just below soil surface, terete, older parts gradually dying off, pale brown. *Roots* c. 1 mm diam., pale to mid-brown. *Cataphylls* 4–5 cm long, c. 1 cm wide, elongate-triangular, tubular, marcescent, one enclosing each petiole base. *Leaves* 1–several, 9–13 cm long, 7–9 cm wide, sub-reniform to broadly sagittate, apex subacute to obtuse, base with subacute, ± divergent lobes, deep green, thin but tough-textured, often variegated silver-grey above, paler green below, slightly glossy. *Petioles* 15–25 cm long, 3–4 mm wide, terete, dull green with darker irregular transverse banding, petiolar sheath very short. *Inflorescence* one per leaf, a large plant bearing many simultaneously, each subtended by one cataphyll as for the petiole; peduncle 20–25 cm long, 3–4 mm wide, coloration as for the petioles. *Spathe* 4–4.5 cm long, 7–8 mm wide, oblong-lanceolate, not constricted, dull green, expanded at first, later the margins revolute and apex reflexed and tubular. *Spadix* c. 5 cm long, slender, male and sterile portion free; female flower zone c. 1 cm long, dorsally adnate to spathe, separated from male flower zone by a c. 2 cm long, 1 mm wide, naked sterile interstice, this occasionally bearing sparse sterile flowers basally and with a short, dense zone of staminodes apically; male flower zone above and confluent with this zone of staminodes, consisting of 6–7 whorls of stamens; terminal appendix digitiform, 2 cm long, c. 3 mm wide, basal portion composed of 2–3 whorls of staminodes confluent with the male flower zone, becoming smooth above. *Flowers* unisexual, naked. *Stamens* c. 0.5 mm wide, 1–3-androus, transversely elongated, sessile, subtruncate apically; thecae oblong to globose, dehiscing via an apical pore, connective flat to pronounced. *Sterile*

Ulearum sagittatum

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flowers 0.5–1 mm diam., depressed-globose or cylindric, those below male flower zone rounded apically, the remainder truncate. *Gynoecium* 3 mm long, c. 1 mm wide, narrowly oblong, 1–locular, 1–ovulate, ovule on a basal placenta; style as wide as ovary; stigma discoid, equalling style, papillose at anthesis. *Infructescence* consisting of one to few berries enclosed within the persistent, envelope-like spathe. *Berries* 6–7 mm long, c. 3 mm diam., oblong, briefly apiculate; seed 4–6 mm long, 1.5–2 mm wide, ovoid, testa thin.

DISTRIBUTION. Peru (Loreto), Brazil (Acre).

HABITAT. Forest floor in rain-forest on terre firme; altitude limits unknown.

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