The Duke Herbarium (DUKE) is collaborating with the Duke Libraries Digital Initiative to provide online access to an estimated 1000 type specimens of vascular plants and associated text and illustrations that include original published descriptions, or protologues, for all our types.

The study of biodiversity depends upon verification of research materials by comparison with designated type specimens and protologues. A type specimen is one that is tied to the naming of the species and serves as the permanent record of the plant that is being named. Subsequent researchers relate other specimens to that type by examining the type material.

This project will provide high-quality digital scans of the original protologues as well as images of the herbarium sheets that contain preserved plant material and other descriptive information. The goal is to create a seamless integrated resource for Duke researchers and plant scientists world-wide.

The Duke Digital Collections Project is a collaboration between the Duke University Herbarium and Duke Libraries

Special thanks to:

**Library:**
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**Example of a preserved holotype from the DUKE University Herbarium.**
## KINDS OF BOTANICAL TYPE SPECIMENS

**Holotype:** Specimen used and/or designated by the author of a new name as the nomenclatural type.

**Isotype:** Duplicate specimen of the holotype.

**Lectotype:** Specimen or illustration designated as the nomenclatural type when no holotype was indicated at the time of publication, or when the holotype is found to belong to more than one taxon.

**Neotype:** Specimen or illustration selected to serve as nomenclatural type if all of the material on which the name of the species was based is missing.

**Syntype:** Any one of two or more specimens cited in the original description.

**Paratype:** Specimen cited in the protologues that is neither the holotype nor an isotype, nor one of the syntypes.

Archival quality botanical prints and cards made from high resolution scanned images of Duke University Herbarium specimens are available for purchase at:

**SARAH DUKE GARDENS TERRACE SHOP**

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### TWO NEW SPECIES OF PASSIFLORA

**SECTION DECOLBA (PASSIFLORACEAE) FROM COSTA RICA**

Living collections of two species of Passiflora L. section Decolba DC., were made in Costa Rica and subsequently studied in cultivation. Both were found to represent undescribed species. The study of the living plants as well as herbarium specimens has allowed the following detailed descriptions. Cultivar names follow the standardized English names system of the ISOTIN (1985).

*Passiflora nubicola* MacDougal, sp. nov. Type: cultivated at Duke University, 1980, from area of MacDougal 220 collected 27 Aug., 1977 in Costa Rica. Puntarenas: Goldfarb de Tilaran, road through Monteverde Cloud Forest Reserve, Pacific slope just below continental divide, ca. 1,500 m. MacDougal 220GR (isotype, JUCGE, isotypes, BM, CR, MEXU, MO). Figure 1.

*Passiflora wendlandii* sp. nov. is a climbing perennial herb 1.5–3.5 m long, lightly and minutely puberulent throughout at shoot tip (except laminas) with evenly spaced trichomes 0.04–0.10 mm long, becoming very sparsely puberulent or glabrescent on mature structures. Stem 1.5–5 mm diam., perennial with little secondary growth (several-year old stems 3–5 mm diam., dark green, not woody), obtusely sub-lanceolate (diving), acutely sub-lanceolate-oblong and 5–6 cm-mature, the carinum becoming verrucose and somewhat pubescent before poster of shoot tip verrucose; phylobactics 2–5. Stipules 1–2.3 × 0.15–0.25 mm, linear-triangular, pilose at base, mucronate. Petioles 0.8–2.0 cm, eglandular. Laminas 2.2–4.6 × 4–6.9 cm at fertile nodes, depressed-ovate to strongly depressed-obovate or semicircular in general outline, adaxially glabrous, often with slight variegation consisting of a few discontinuous patches of white between (not along) the primary and secondary veins, abaxially very sparsely puberulent with trichomes restricted to primary and secondary veins, sometimes flushed purplish (especially new growth), margins entire, sparsely puberulent to nearly glabrous, shadily (2–3 mm long) to nearly 3 mm distant to the adaxial base, the lateral lobes dilated to rounded or truncate, the central keel (abaxial to) dilate or truncate and sometimes emarginate, the angle between the primary lateral veins 75–90°–100°, the ratio of lateral to central vein length 1.0–1.1, the ratio of laminar width to length 1.5–2.1, laminar necroties 8–14 (10) per foot (to 26 cm immature plants), borne abaxially between the primary veins, often appearing lightly yellowish, adaxially the most proximal pair only occasionally striated scabrius but not enlarged, leaves of juvenile plant similar, variegated, vein ratio close to 1:1; seeds unknown. Tendrils straight during development at shoot apices. Proplyof of vegetative ramifying bud 1.4, lanceolate, acuminate. Petalules 1.0–2.0 mm, greenish, uniseriate, lineate-bulbous, base 3, 6, 7, 1.4 × 0.05–0.25 mm, usually borne near apex of peduncle, linear-triangular, often involute near base and appearing nervously lanceolate, early necrotic, stramineous. Flowers ca. 1.7–2 cm diam., subependant, which with green and yellow corolla, slightly ovate-oblong, floral rips 2.0–4.6 mm (3–6 mm in bud); hypanthium 5–5.5 mm diam.; sepals 5.7–11 × 2.4– 4.4 mm, oblong to ovate-lanceolate, rounded, corolla-tube, pale yellow-green adaxially, which adaxially petals 5.0–7.5 × 2.4–3.4 mm, oblong to ovate-oblong, rounded, white filiforms cor- rona in 1–2 series, the outer filaments ca. 23–25, 2.3 mm, simply curved and spreading, thickest near the base, abaxially flattened, slightly laterally compressed, the apex obtuse or rounded, light yel- lowish green basally, bright yellow toward apex; inner series (if present) 1.8–2.2 mm, capillary, dicrate or dilated at the apex, inclined toward an- dragynophore; operculum 0.9–1.5 mm, membrana-


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![Figure 1: Passiflora wendlandii.](image-url)