



A new species of *Magnolia* (Magnoliaceae) from central Peru

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Introduction

Peruvian species of *Magnolia* were not included in major treatments of the Peruvian flora until the last decade, following revisions of *Dugandiodendron* and *Talauma* for the Neotropics published by Lozano-Contreras in 1994 (Pennington *et al.* 2004, Ulloa *et al.* 2004) when *M. amazonica* (Ducke, 1925: 11) Govaerts (1996: 25) and *M. rimachii*, (Lozano, 1994: 105) Govaerts (1996: 39), two lowland Amazonian species, were included. Subsequently, new species of *Magnolia* were described from the eastern humid montane and lowland forests in northern and central Peru (Dillon & Sanchez 2009, Vázquez-García *et al.* 2012). The new species reported here is described for the humid forests of the eastern Andean slopes of central Peru. Following the classification proposed by Figlar & Nootboom (2004), this species belong to genus *Magnolia* subgenus *Magnolia* section *Talauma* subsection *Talauma* because of stipule adnation to petioles, circumscissile dehiscence of fruits and absence of a filamentous appendage in the stamen connective.

Specimens from HOXA, MOL and USM were analysed. Additionally, fieldwork was carried out in order to obtain fresh material (particularly of some missing stages) as well as to gather information about phenology and habitat of this species. To maintain uniformity for taxonomic treatments of Neotropical Magnoliaceae, vocabulary of descriptions follows the work of Lozano-Contreras (1983, 1994).

Magnolia juninensis F.Arroyo, *sp. nov.* Type:—PERU. Junin: Provincia Chanchamayo, Distrito San Ramon, bosque Puyu Sacha, 11°05' S, 75°25'W, 2150 m, 02 September 2011, Arroyo & Quispe 234 (holotype MOL!; isotype USM!).(Fig. 1)

Trees to 25 m high, branchlets covered with deciduous greyish hairs; leaf blades elliptic to suborbiculate, apex emarginate to rounded, base obtuse, glabrous adaxially, lanose abaxially; flowers solitary, hypsophylls 3, sepals 3, externally pubescent, petals 8; stamens ca. 50; gynoecium with up to 25 carpels; fruit ellipsoid, pubescent.

Trees to 25 m tall; outer bark greyish, slightly fissured and profusely lenticellate, inner bark yellowish, with strong characteristic smell; branchlets terete or slightly compressed, lenticellate, 0.6–1.3 cm in diameter, distally with grey pubescence (turning yellowish to tan on drying) of simple hairs especially covering vegetative buds and floral peduncles, becoming glabrous with age. Petioles 1–3 cm long, glabrescent, semiterete, with flat or concave adaxial scar covering up to 75% of their length. Leaves elliptic to suborbicular or sometimes obovate, 9–20 × 5–14 cm, bright to dark green and glabrous above, densely covered with hirsute grey pubescence beneath especially on midrib and lateral veins, apex rounded, emarginate or obtuse (acute in leaves of younger shoots), margin entire, base obtuse to cuneate; lateral veins 10–17 on each side of midrib, brochidodromous, plane to slightly raised above, raised beneath, tertiary venation prominulous or obscure on both surfaces, or usually obscure beneath due to the dense pubescence. Stipules 2.5–9.6 cm long, densely pubescent, becoming glabrous with age. Flowers terminal, solitary, fragrant with fruity smell; hypsophylls 1–3, pubescent; sepals 3, creamy white to pale yellow, 2.9–3.2 × 2.0–2.1 cm, broadly elliptic, concave, chartaceous, externally pubescent only from the base up to the middle, apex obtuse; petals 8, fleshy, creamy white to pale yellow, the outer ones 3.25–4.10 × 1.50–2.00 cm, obovate, cochleariform, apex obtuse, rounded or emarginate, the inner ones 3.0–3.7 × 1.1–1.4 cm, elliptic, cymbiform, apex acute; stamens linear, ca. 50, 1.0–1.5 × 0.2 cm; gynoecium ellipsoid, 1.8–2.2 cm long, carpels 19–25, longitudinally ribbed, pubescent except on the extrorse stigmas. Fruit ellipsoid to obovoid, 3.7–6.0 × 2.1–3.8 cm, greenish to tan, pubescent, with circumscissile dehiscence; seeds not seen.

It is often found in association with *Hieronyma macrocarpa* Müll. Arg. (Euphorbiaceae), *Retrophyllum rospigliosii* (Pilg.) C.N. Page (Podocarpaceae), *Cecropia* spp. (Urticaceae), *Coussapoa* sp. (as a strangler, Urticaceae), *Ficus trigona* L.f. (Moraceae), *Schefflera* sp. (Araliaceae) and *Ceroxylon* sp. (Arecaceae).

Discussion:—A closely related species is *Magnolia gilbertoi* (Lozano, 1983: 73) Govaerts (1996: 30) from Colombia. The main differences between them are the number of lateral leaf veins (10–17 on each side of the midrib in *M. juninensis* vs. 17–21 in *M. gilbertoi*), number of petals (8 vs. 6, respectively), shape of petals (obovate or elliptic vs. obovate only, respectively), shape of stigmas (strongly extrorse vs. straight or slightly extrorse, respectively) and a greater number of stamens (ca. 50 vs. 34, respectively) and carpels (25 vs. 11, respectively). Another similar species is *Magnolia yarumalensis* (Lozano, 1983: 46) Govaerts (1996: 72), which differs from *M. juninensis* in its petioles without an adaxial scar, and greater number of stamens (89 in *M. yarumalensis* vs. ca. 50 in *M. juninensis*) each with an apical filament-like appendage not found in *M. juninensis*.

Etymology:—The species epithet refers to Junin, the region of the type locality.

Additional specimens examined:—PERU. Junin: Prov. Chanchamayo, San Ramón, Alto Pichita, fundo Vista Alegre-APRODES, 11°05' S, 75°25' W, 2150 m, 30 September 2002, *Daza & Reyna 2832* (MOL). Pasco: Prov. Oxapampa, Dist. Huancabamba, Zona de Amortiguamiento del Parque Nacional Yanachaga-Chemillen, sector Oso-Playa, 10°19' S, 75°34' W, 2410 m, 24 September 2007, *Monteagudo et al. 15263* (HOXA, USM); Zona de Amortiguamiento del Parque Nacional Yanachaga-Chemillen, sector Oso-Playa, 10°17' S, 75°36' W, 2200 m, 11 June 2008, *Monteagudo et al. 16364* (HOXA USM); Oxapampa, Parque Nacional Yanachaga-Chemillen, cercanías de refugio El Cedro, 10°32' S, 75°21' W, 2240 m, 24 November 2002, *Monteagudo et al. 4421* (HOXA, USM).

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