

**9. *Villadia thiedei* PINO  
& CIEZA sp. nov.**

*Species habitu cum Villadia virgata congruens, sed differt ab ea ramificatione staturaque maioribus, usque ad 35 cm alta, foliis longioribus anguste triangularibus 9–13 mm longis 2–3 mm latis glaucis saepe rubescentibus; inflorescentia longiore spica 3–13 cm longa 13–30 floribus sessilibus minoribus, sepalis 3.2–3.5 mm longis 1.4–1.6 mm latis, petalis oblongis acutis 3.3–3.7 mm longis 1.4–1.6 mm latis pallide flavo-virentibus apice introrsum recurvato. Floret ab Decembro ad Februarium.*

**Holotype:** Dept. Cajamarca, Prov. San Marcos, Dist. José Manuel Quiroz, road from Liclic to Platanillo, on borders of footpath partially shaded by shrubs, growing with *Villadia aureistella*, *Peperomia cereoides* Pino et Cieza, *Peperomia rupiseda* DC, and *Sedum isidorum*, 7°20'09" S, 77°59'16" W, 2920 m, 1 Feb 2008, G. Pino 1882 (USM 218,481).

A succulent glabrous herb, 14–35 cm tall when flowering. Roots 3–7 cm long, 0.1–0.25 mm diam, grayish. Stem erect, 1.8–4 (–5) mm diam at base, gray-brownish, branching every 5–8 cm. Branches 1–5, erect, vegetative shoots 7–13 cm long, flowering shoots up to 20 cm long, stem 2–2.5 mm diam, glaucous, reddish where exposed and at base in young plants (Fig 57). Leaves succulent, sessile, spirally arranged, crowded near the base and in young plants attached at an acute angle, straight to slightly upcurved, narrowly ovate to narrowly deltoid, (6–) 9–13 mm long, 2–3 mm wide, 1.4–3 mm thick, obtuse-subacute, upper side flat to slightly concave, lower side convex, light green-glaucous, reddish in very exposed plants, margins entire (Fig 58).

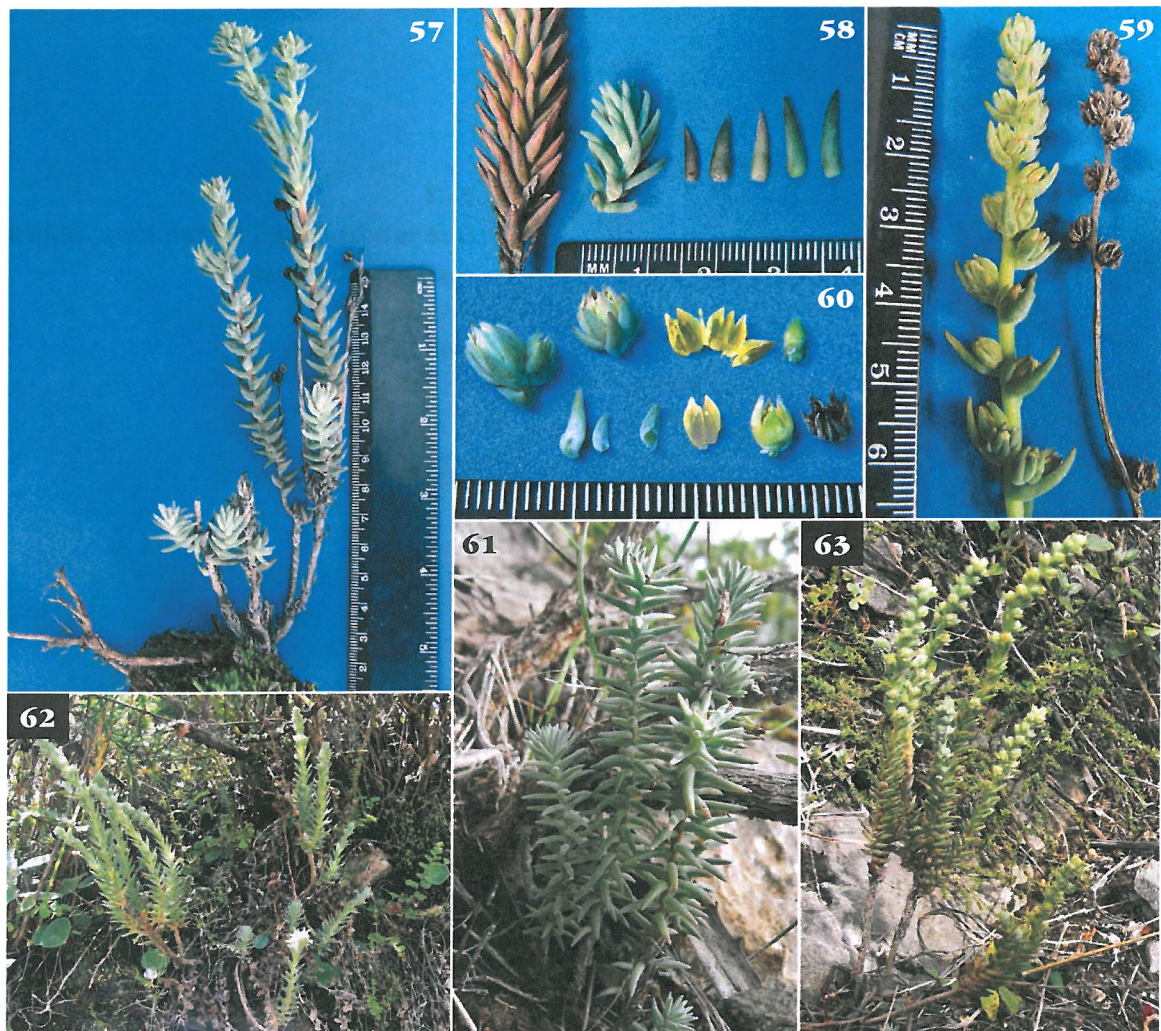
Inflorescence a terminal single spike 3–9 (–13) cm long, rarely with 3–5 basal branches (Fig 59). Flowers 13–30, appearing from December to February, rarely geminate along the lower third. Rachis 1.8–3 mm diam, light green-glaucous. Flower buds 4.5 × 4 mm. Bracteoles three per flower, the largest opposite the stem and the other two laterally placed at 90°, one at each side, 3.5–5.5 mm long, 1.2–1.7 mm wide, narrowly ovate-deltoid, obtuse to acute, upper side flat to concave, lower side convex, slightly upcurved, with a hyaline spur at base. Pedicels absent. Sepals narrowly ovate to deltoid, 3.2–3.5 mm long, 1.4–1.6 mm wide, light green-glaucous. Petals oblong, apex obtuse to acute-deltoid, united along the proximal three fourths, incurved along the distal fourth, 3.3–3.7 mm long, 1.4–1.6 mm wide, outer surface convex, greenish pale yellow with a reddish flush near distal keel, inner surface concave, yellow, margins entire. Stamens ten, the five epipetalous 1.8–2 mm long, the antepetalous 2.8–3 mm long, filaments pale yellow, conical, 0.3 mm diam. Anthers ovoid, 0.3 × 0.5 mm, yellow. Gynoecium ovoid, 1.82 ×

2.00 mm, green. Carpels five. Styles 0.7 mm long, light green. Nectary scales oblong-deltoid, greenish-white, 1.2 × 0.6 mm. Fruit a dehiscent capsule, 4.5 × 3.5 mm, dry carpels brown (Fig 60).

In 2000, this species was discovered by the San Marcos Botanical Garden team at the type locality of *Peperomia cereoides* and *P. liclicensis* (Pino and others 2003) (Fig 61). However, its flowers were not seen until 2007, when Nelson Cieza and Philippe Corman discovered its spikes, establishing its position in *Villadia* (Fig 62). It was not until recently that we could differentiate it from *Villadia virgata* (DIELS) BAEHNI & MCBRIDE, from Chiquián, Ancash, not very distant geographically (Pino 2006).

*Villadia thiedei* is taller, more branched, the leaves are longer and narrowly subdeltoid. It has the lightest-colored leaves of any species in Department Cajamarca, although very exposed plants may have reddish stems (Fig 63). Its flowers, with yellow petals and carpels, are very difficult to discern and are perhaps the smallest of any Peruvian species. Petals of *V. virgata* are whit-

ish, slightly recurved at the apex, and the outer side has a brownish keel. The new species has coriaceous petals with incurved apices and with a pinkish tinge on the outer side of the apex. The species is dedicated to the German botanist Joachim Thiede, an authority on Crassulaceae, who together with Henk 't Hart transferred all cymose Peruvian Sedoideae to *Sedum* (1999). He kindly forwarded to us all his papers and photos to make this article possible. Although his name is pronounced "tee-duh" in German, I suggest the specific name be pronounced "TEE-dee-eye" for the sake of euphonics.



**Figures 57–63. *Villadia thiedeii*.** **Figure 57.** *V. thiedeii* ex situ. **Figure 58.** Detail of the branches and leaves. From left to right: mature branch, young shoot, leaves. **Figure 59.** Comparison of immature (left) and mature, dry (right) spikes. **Figure 60.** Detail of the flowers. From left to right: geminate flower bud, (above) flower, extended calyx, gynoeceium; (below) bracts (2), sepal, petals, flower section, dry fruit. **Figure 61.** Young *V. thiedeii* in habitat without flowers in the dry season. Note the light glaucous color. **Figure 62.** Shaded *V. thiedeii* in habitat at Liclic growing with *Peperomia rupiseda*. **Figure 63.** *V. thiedeii* in habitat initiating anthesis. Note the reddish stems of very exposed plants.