



## Two new species of the orb-weaving spider genus *Alpaida* (Araneae, Araneidae) from Peru

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### Abstract

Two new species of the orb-weaving spider genus *Alpaida* O. P.-Cambridge, 1889 are described and illustrated; *Alpaida losamigos* n. sp. based on females from Madre de Dios, and *Alpaida penca* n. sp. based on females and males from Cajamarca.

**Key words:** Araneidae, *Alpaida*, Neotropical region, new species, Peru, taxonomy

### Introduction

The family Araneidae, despite being one of the most diverse spider families, is relatively well studied in the Neotropics thanks to the excellent taxonomic revisions of Herbert Levi which not only allowed species identification, but also to recognize new species. Nonetheless many Neotropical spider species, including araneids, remain to be described, and of those named so far, a large fraction are known after only one sex and one or very few individuals. The genus *Alpaida* O.P.-Cambridge, 1889 is known from the Neotropical region only; to date, 144 species of this genus have been described (Levi 1988, 1992, 1993, 1999, 2002; Buckup & Meyer 1993; Abraham & Bonaldo 2008; Santos & Santos 2010; Rodrigues & Mendoça 2011 and Braga-Pereira & Santos 2013). Twenty species of *Alpaida* are registered from Peru (Levi, 1988; Platnick, 2014), but no new species have been described from this country since Levi’s revision in 1988.

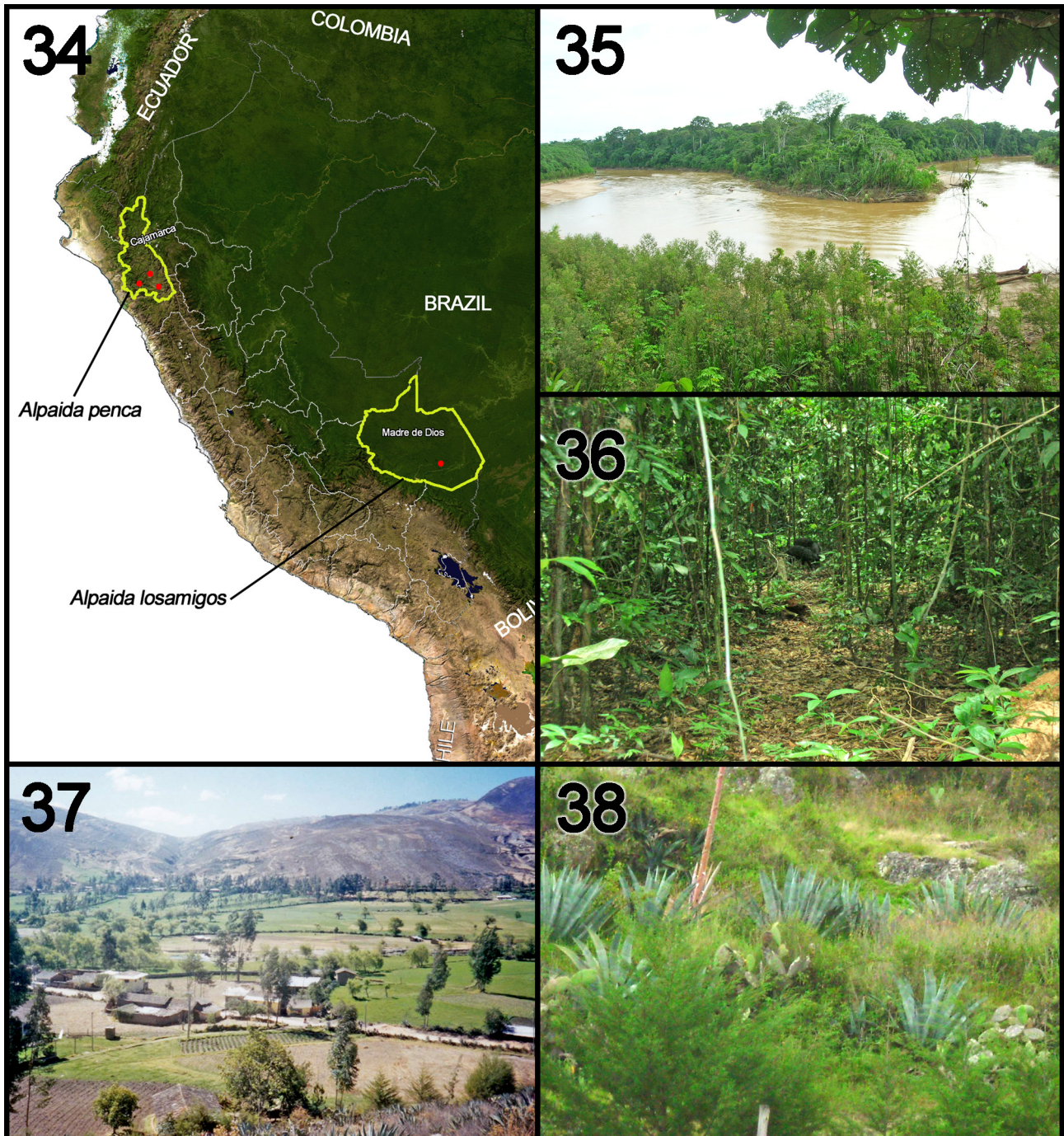
The genus *Alpaida* can be recognized by the bright, glabrous body (see Figs. 1,4,10,12), the male palp with its radix, embolus and terminal apophysis fused into one sclerite, the stalk of the mushroom-shaped paramedian apophysis attached to the conductor, and the median apophysis (that never has sharp spines), is usually elongated, often with a blunt apical tooth pointing towards the cymbium. Females are recognized by the shape of the epigynum which is usually transverse and sclerotized, with posterior lips, the middle portion drawn out into a triangular lobe or scape, a median plate framed by a lip in posterior view, and the copulatory openings on each side between plate and lips (Levi, 1988).

Scharff & Coddington (1997) carried out the first cladistic analysis of the family Araneidae. In their preferred cladogram, *Alpaida* appears as the sister group of *Bertrana* plus *Enacrosoma*, and this clade is supported by a single synapomorphy (the loss of the distal haematodocha).

In the present study, we describe two new species of *Alpaida* from Peru; one was collected in the southern rainforests, and the other in the northern highlands.

### Material and methods

The specimens examined are deposited at the arachnological collection of the Museo de Entomología “Klaus Raven Büller”, Universidad Nacional Agraria La Molina, Lima (MEKRB, curator Mariajosé Deza) and Museo de



**FIGURES 34–38.** Distribution and habitats of *Alpaida losamigos* n. sp. and *Alpaida penca* n. sp. 34, Map of species distribution, in yellow the limits of Departments of Madre de Dios and Cajamarca; 35–36, rainforests of Madre de Dios (35, panoramic view of Los Amigos River; 36, habitat of *Alpaida losamigos* n. sp.). 37–38, Highlands of Cajamarca (37, panoramic view of the Cajamarca valley; 38, Agaves where *Alpaida penca* n. sp. inhabit).

## References

- Abraham, N. & Bonaldo, A.B. (2008) A new species of *Alpaida* (Araneae, Araneidae) from Caxiuanã National Forest, Oriental Amazonia, Brazil. *Iheringia, Série Zoologia*, 98, 397–399.  
<http://dx.doi.org/10.1590/s0073-47212008000300015>
- Braga-Pereira, G.F. & Santos, A.J. (2013) Two new species of the spider genus *Alpaida* (Araneae: Araneidae) from restinga areas in Brazil. *Zoologia (Curitiba)*, 30, 324–328.  
<http://dx.doi.org/10.1590/s1984-46702013000300010>

- Buckup, E.H. & Meyer, A.C. (1993) Sobre o macho de *Alpaida scribea* (Araneae, Araneidae). *Revista Brasileira de Entomologia*, 37, 353–354.
- Levi, H.W. (1988) The neotropical orb-weaving spiders of the genus *Alpaida* (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology, Harvard University*, 151, 365–487.
- Levi, H.W. (1991) The Neotropical and Mexican species of the orb-weaver genera *Araneus*, *Dubiepeira*, and *Aculepeira* (Araneae: Araneidae). *Bulletin of the Museum of comparative Zoology*, 152, 167–315.
- Levi, H.W. (1992) Spiders of the orb-weaver genus *Parawixia* in America (Araneae: Araneidae). *Bull Bulletin of the Museum of comparative Zoology*, 153, 1–46.
- Levi, H.W. (1993) American *Neoscona* and corrections to previous revisions of neotropical orb-weavers (Araneae: Araneidae). *Psyche*, 99, 221–239.  
<http://dx.doi.org/10.1155/1992/93912>
- Levi, H.W. (1999) The Neotropical and Mexican Orb Weavers of the genera *Cyclosa* and *Allocyclosa* (Araneae: Araneidae). *Bulletin of the Museum of comparative Zoology*, 155, 299–379.
- Levi, H.W. (2002) Keys to the genera of Araneid orb weavers (Araneae: Araneidae) of the Americas. *The Journal of Arachnology*, 30, 527–562.
- Piel, W.H. (2001) The Systematics of Neotropical Orb-weaving Spiders in the Genus *Metepeira* (Araneae: Araneidae). *Bulletin of the Museum of comparative Zoology*, 157, 1–92.
- Pino-Infante, G. (2006) Estado actual de las Suculentas en el Perú. *Zonas Áridas*, 10, 155–173.
- Platnick, N.I. (2013) The world spider catalog, version 14.0. American Museum of Natural History. Available from <http://research.amnh.org/iz/spiders/catalog> (accessed 23 December 2013)
- Rodrigues, E.N.L. & Mendoça, M. (2011) Araneid orb-weavers (Araneae, Araneidae) associated with riparian forests in southern Brazil: a new species, complementary descriptions and new records. *Zootaxa*, 2759, 60–68.
- Rosenthal, A., Stutzman, H. & Forsyth, A. (2012) Creating mosaic-based conservation corridors to respond to major threats in the Amazon Headwaters. *Ecological Restoration*, 30, 296–299.  
<http://dx.doi.org/10.3368/er.30.4.296>
- Rubio, G.D., Izquierdo, M.A. & Piacentini, L.N. (2013) A new orb-weaving spider from the Argentinian flooding pampas grasses: *Aculepeira morenoae* new species (Araneae, Araneidae). *Zootaxa*, 3613 (6), 548–556.  
<http://dx.doi.org/10.11646/zootaxa.3613.6.2>
- Santos, K.P. & Santos, A.J. (2010) Two new species of the orb-weaving spider genus *Alpaida* from Brazil (Araneae: Araneidae). *Zootaxa*, 2336, 61–66.
- Scharff, N. & Coddington, J.A. (1997) A phylogenetic analysis of the orb – weaving spider family Araneidae (Arachnida, Araneae). *Zoological Journal of the Linnean Society*, 120, 355–434.  
<http://dx.doi.org/10.1111/j.1096-3642.1997.tb01281.x>