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# Discovery of three new *Tetraponera* species (Formicidae; Pseudomyrmecinae) from Sri Lanka

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*Tetraponera* F. Smith is the sole genus of subfamily Pseudomyrmecinae recorded from Sri Lanka and very little is known about the diversity of the arboreal genus in the country. Nests of *Tetraponera* species were collected by checking the worker trails and locating them followed by severing the nests from the host trees. Colony members in (i) a nest in a cashew tree branch from Delgoda (7º 00.395´N and 80º 00.96´E) Udupila in Gampaha District in March, 2015 (ii) three nests of *Tetraponera* from two jack trees in the premises behind the Department of English language Teaching (6º58´ 35.94" N and 79º54´ 58.8"E), University of Kelaniya in March, 2015 and (iii) a nest in a dry rubber branch from Gulanakanda (6°35'01.7"N 80°00'36.7"E), Bombuwala, Kalutara in August, 2016 were preserved in 70 % ethanol for the identification and listing of *Tetraponera* species. Fifteen morphometric parameters of each adult caste of each species, if present, were measured using a calibrated micrometre eyepiece fixed to a stereo-microscope and total length of the adult castes were measured by a ruler in mm scale, which was kept under the stereo-microscope. Cephalic Index (CI=HW/HL), Scape Index (SI=SL/HW) and Relative Eye Length (REL=EL/HL) were also calculated. Worker ants were identified to the species level refering to the relevant literature; *T. extenuata* Ward, *T. microcarpa* Wu and Wang and *T. modesta* (F. Smith) in *Tetraponera allaborans*-group were identified from the nests (i), (ii) and (iii), respectively. Black or dark brownish black worker with the contrasting brownish orange post-petiole, tibiae, tarsi and scapes, taller and more slender propodeum and more convex and soft-edged pronotal margins characterized *T. extenuata* workers. Workers of *T. microcarpa* were of black or brownish black, with lighter brown petiole, post-petiole and appendages, bidentate median clypeal lobe, short and broad profemur and quadrat-shaped propodeum. Small size, orange-brownish colour of the body with lighter colour appendages and relatively slender profemur characterized *T. modesta* workers. Colony demography of each nest recorded by counting the number of each adult caste with the naked eye and that of larvae, pupae and eggs under the stereo-microscope indicated that workers generally had the highest percentage abundance whereas eggs or larvae were also present in higher percentages. Very low percentage of dealate queen was observed in each nest. Four *Tetraponera* species, *T. rufonigra* (Jerdon), *T. allaborans* (Walker), *T. nigra* (Jerdon) and *T. nitida* (Smith) recorded previously from Sri Lanka rose to seven with the current findings. A taxonomic key that distinguish all *Tetraponera* species recorded from Sri Lanka is prepared with the colour images to facilitate quick identification of workers of each species.

**Keywords**: Arboreal ants, Ant diversity, First record, Pseudomyrmecinae

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