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Onychophorans (velvet worms), such as this undescribed Australian species, are voracious predators in temperate and tropical forests. Although morphological evidence has not resolved their evolutionary relationships, analyses of their 12S ribosomal RNA sequences suggest that onychophorans fall within the phylum Arthropoda (invertebrates with segmented legs) and are closely related to spiders and scorpions. See page 1345. [Photograph: R. W. Taylor]

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