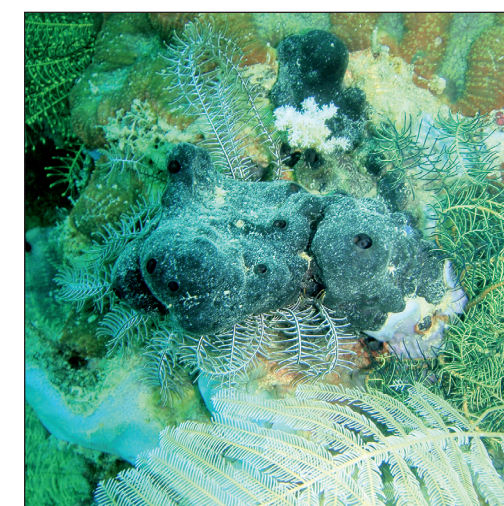




Sponges usually obtain their distinct shape and structure by arrangement of mineral or organic skeletal elements (spicules, fibers). A small group, although provided with spicules, nevertheless is incapable of developing recognizable shapes because the type of structural spicules they have (equal-length four-rayed siliceous elements called *calthrops*) preclude the possibility of building a cohesive skeleton. Such sponges insinuate themselves in crevices and holes, diminishing the chance of their discovery and collection. The study addresses the taxonomy and biodiversity of two globally distributed genera of these sponges, *Dercitus* and *Calthropella*, including the description of ten new species (of 38 species so far documented). The two genera appear similar in spiculation, but they differ in the types of small spicules (microscleres). This induces a discussion of their phylogeny and classification: are they closely related or is it convergent evolution? No proposals are made for a rearranged classification pending independent evidence from molecular studies.

SKELETONS IN CONFUSION: A REVIEW OF ASTROPHORID SPONGES WITH (DICHO-) CALTHROPS AS STRUCTURAL MEGASCLERES (PORIFERA, DEMOSPONGIAE, ASTROPHORIDA)

BY ROB W.M. VAN SOEST,
ELLY J. BEGLINGER, NICOLE J. DE VOOGD



Dercitus (Halinastra) berau, sp. n.

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