

# *Ancistrocerus renimacula* renting a *Sceliphron* mud-nest (Hymenoptera: Eumenidae)

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*Abstract:* An old *Sceliphron* nest consisted of six closed cells. One cell contained dried spiders, the other five cells were subdivided into three compartments, containing eumenid wasps, *Ancistrocerus renimacula* Lepeletier: eight females and seven males, part of which emerged after about one year. No chimney-like extension was added to the nest.

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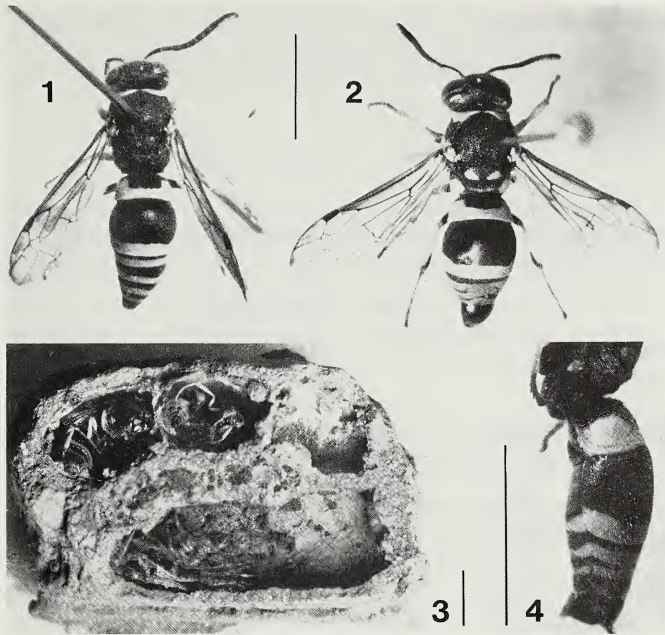
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In the month of July 1986 I collected a number of clay-nests in the south of France (La Londes-les-Maures, Var). All nests were made by mud-dauber wasps of the sphecid genus *Sceliphron* Klug, most of them by *S. caementarium* (Drury) and a few by *S. spirifex* Linnaeus. One of the nests, probably made by *S. spirifex*, had the appearance of an old nest, however showing closed cells. From this nest no insects emerged before the summer of 1987, and than after about one year nine specimens of the eumenid wasp *Ancistrocerus renimacula* Lepeletier emerged (figs. 1, 2). Berland (1928) called this wasp: *Odynerus* (*Ancistrocerus*) *parietum* Linnaeus. Blüthgen (1961) distinguished four species within his *parietum* group, of which we have here *Ancistrocerus renimacula* Lepeletier. This is a Mediterranean species, which is also found in central Europe.

Eumenid wasps, which show no petiolate gaster and no petiolate cubital cells, have been indicated for a long period of time with the generic name *Odynerus* Latreille, 1802. The nesting biology of these *Odynerus* species varies widely from those which excavate nests in soil to those utilizing pre-existing holes in plant stems or in walls (Iwata, 1976). The present observation shows that *A. renimacula* can reutilize *Sceliphron* nests. Fig. 3 shows two cells originally built by *Sceliphron*. The original cell at the top of the figure has been subdivided into

three cells by *A. renimacula*. One eumenid wasp was emerged, in the two other cells however, dead eumenid wasps were found. Not only this *Sceliphron* cell but also four other cells have been subdivided by *A. renimacula* into three cells. The total yield of wasps was eight females and seven males. After opening the cell shown at the bottom of fig. 3, dried spiders were found. In this cell the *Sceliphron* egg may not have been hatched.

*A. renimacula* is not the only eumenid wasp which reutilizes *Sceliphron* nests. According to Evans & Eberhard (1970), Bohart and Nye have found the nest of *S. destillatorium* (Illiger) reutilized by *Ancistrocerus*, and Iwata (1976) found an *Odynerus* species using nests of *Sceliphron*. The latter *Odynerus* also added a chimney to the mud nest. A chimney-like extension has also been described by Berland (1928) for *Odynerus* (*Ancistrocerus*) *parietum*, which according to Berland comprises his subspecies *renimacula*. The present observation shows that *A. renimacula* makes no chimney-like extensions to the original *Sceliphron* nest. This may be an additional argument for considering *renimacula* as a distinct species, as proposed by Blüthgen (1961). A comparable argument has been described for a social wasp: Evans & Eberhard (1970: 171) discussed the value and limitations of nest structure in wasp taxonomy and separated a *Polybia* species from its relatives by the study of the nest.



Figs. 1-4. *Ancistrocerus renimacula* rents a clay-nest. 1, male; 2, female; 3, clay-nest originally built by *Sceliphron* (*?spirifex*). The top cell has been subdivided by the eumenid wasp into three cells, in two of them dead *A. renimacula* wasps are visible. The cell at the bottom may never have yielded a *Sceliphron*; the cell was partly filled with dried spiders. 4, lateral view of the female gaster. (Vertical bars: 0.5 cm).

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