

**The status of four scallop species (Mollusca; Bivalvia; Pectinidae),  
with description of a new genus**

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A new genus, *Karnekampia* (type species: *Pecten bruei* Payr.), is proposed in order to establish the position of four species of Pectinidae known from Europe, the Mediterranean, Western and Southern Africa. The new genus can be distinguished from *Chlamys* s.s. and *Manupecten*, to which the species were assigned previously, mainly by its microsculpture. The importance of microsculpture for the taxonomy of Pectinidae is discussed.

Key words: Bivalvia, Pectinidae, *Karnekampia*, taxonomy, microsculpture.

INTRODUCTION

During the preparation of two papers concerning European and South African Pectinidae respectively, I was confronted with four species that could not be classified within the existing generic system. The species are *Pecten sulcatus* Müller, 1776 (N. Europe), *Pecten bruei* Payraudeau, 1826 (Mediterranean and adjacent part of the Atlantic Ocean), *Chlamys alicei* Dautzenberg & Fischer, 1897 (Azores to Namibia), and *Chlamys gilchristi* Sowerby<sup>3rd</sup>, 1904 (South Africa). These species were formerly classified within *Chlamys* Röding, 1798 (*sulcata*, *bruei* and *gilchristi*) and *Manupecten* Monterosato, 1872 (*alicei*) by various authors. However, they can be distinguished from these genera by a different microsculpture as discussed below. Preliminary to the papers in preparation a new genus is proposed for the four species concerned, with remarks on and a comparison with the genera the species were assigned to previously. Abbreviations: ERM = collection Dr. E. Rolán Mosquera (Vigo, Spain); HPW = collection H.P. Wagner (Leiden); SAM = collection South African Museum (Cape Town, South Africa).

***Karnekampia* nov. gen.**

Type species. — *Pecten bruei* Payraudeau, 1826 (fig. 1).

Other species. — *Pecten sulcatus* Müller, 1776 (fig. 2); *Chlamys alicei* Dautzenberg & Fischer, 1897; *Chlamys gilchristi* Sowerby<sup>3rd</sup>, 1904 (fig. 3).

Etymology. — The new genus is named in honour of Mr. Cor Karnekamp, founder and promotor of the Malacologische Contactgroep Amsterdam, that will celebrate its 25th anniversary this year. Cor is one of the most important people that made malacology popular among a broad public in The Netherlands.

Diagnosis. — Shell longer than wide, rather delicate. Valves inequilateral, left valve more convex than the right one. Pronounced (primary) ribs of left valve single and hollow, hiding riblets formed by rows of small tubercles, that become visible when the ribs are damaged. Secondary ribs also consist of rows of small tubercles which, however, are not hidden. In between primary and secondary ribs fine grooves may be

observed. All ribs of right valve equally pronounced, but clustered on broad plicae that coincide with the interspaces between the pronounced ribs of the left valve. Ribs appear gradually at equal distances from the apex. Anterior auricles twice as large as posterior, with a reticulate structure carrying tubercles at each crossing-point. In between this structure fine grooves are visible. Posterior auricles with tuberculous ribs only.

Range. — Representatives of this group can be found from the Arctic Ocean to the Irish Sea (*K. sulcata*), from NE. Spain into the Mediterranean (*K. bruei*), from the Azores to Namibia (*K. alicei*), and from the Agulhas Bank to False Bay, Cape Province, South Africa (*K. gilchristi*). All species prefer deeper water.

Remarks. — *Karnekampia* can be distinguished from both *Chlamys* s.s. and *Manupecten* by the presence of hollow ribs on the left valve. The sculpture in *Chlamys* s.s. consists of squamae, while *Karnekampia* has tubercles. Generally the shells of *Chlamys* s.s. are also more solid. *Manupecten* is characterized by a shagreen pattern covering the whole shell (including the upper surface of the ribs). It only has tubercles on the auricles, which are much larger than in *Karnekampia*. Lucas (1979: 9) earlier pointed out that "*Chlamys*" *bruei* is clearly different from *Chlamys* s.s. He thought of proposing a new generic name for it, *Porosichlamys*, but directly rejects the idea, thereby creating the proposed name as a publication in synonymy according to art. 11e of the International Code of Zoological Nomenclature (Dr. L.B. Holthuis, personal communication). Lucas (op. cit.) also relegated *K. sulcata* to the synonymy of *K. bruei*, as was done by previous authors. Indeed, a mix-up has often occurred in the literature regarding both species, but they can be distinguished morphologically (Wagner, in prep.). Geographically both species are also isolated; *K. bruei* is restricted to the Mediterranean and the adjacent part in the Atlantic Ocean (from the Bank of Galicia south to NW. Africa), while *K. sulcata* is only found in the Arctic Ocean, Norway, Iceland, Faroer Islands, Shetland Islands, north coast of Scotland, the Irish Sea and Helgoland.

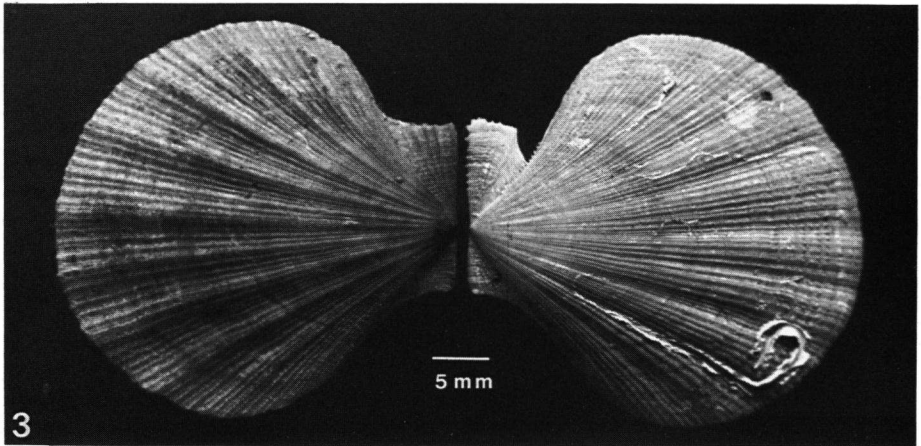
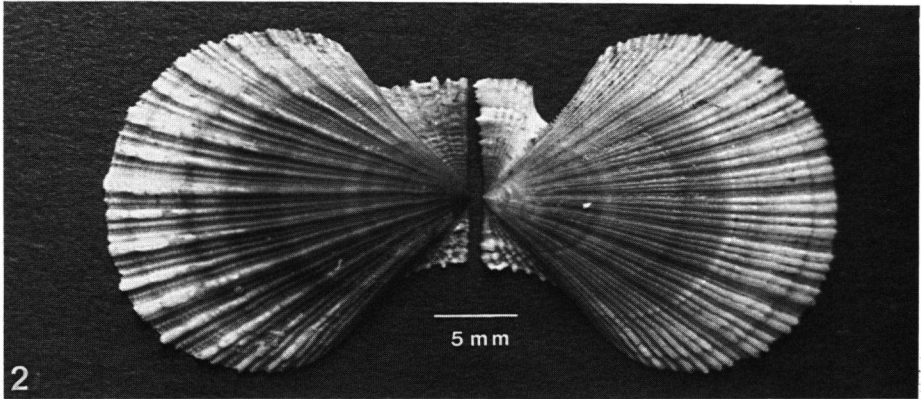
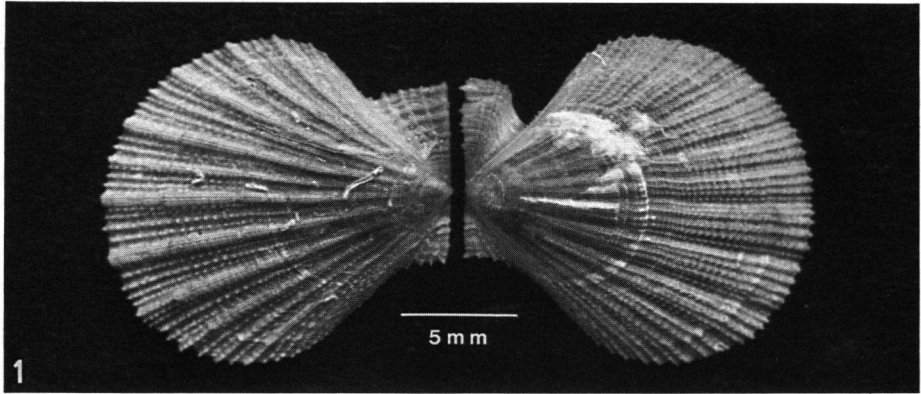
#### THE ROLE OF MICROSCULPTURAL PATTERNS IN PECTINIDAE TAXONOMY

In the past ten years I have made a thorough study on the significance of the microsculpture in Pectinidae taxonomy. In a few cases parts of the microsculptural pattern can be used to discriminate species (Wagner, 1983: 48), but it serves better as a criterion to define (sub)genera (Wagner, 1985: 84). Of course, other characters should not be kept out of consideration as certain genera share a similar microsculptural pattern, but are morphologically clearly different (for example *Semipallium* versus *Equichlamys*). In my opinion, a different microsculpture in the ontogeny of the shell is proof of a different origin, and therefore is an important character for taxonomy at the generic level.

Fig. 1. *Karnekampia bruei* (Payraudeau, 1826), Galicia Bank, off NE Span, 350-500 m; ERM.

Fig. 2. *Karnekampia sulcata* (Müller, 1776), Norway, Trondhjemfjord near Agdenes, 10-100 m, leg. W. Backhuys; HPW 300.

Fig. 3. *Karnekampia gilchristi* (Sowerby<sup>3rd</sup>, 1904), Vasco da Gama, False Bay, N. 71° (error!), E, 18½ miles; depth, 230 fms; bottom, stones; SAM 14853 (holotype).



## ACKNOWLEDGEMENTS

I am indebted to Dr. A.C. van Bruggen (University of Leiden) and my wife Elsa for reading the manuscript and giving their valuable comments.

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