

New records of the genus *Cyprideis* (Crustacea, Ostracoda) from South Africa

by Karel WOUTERS

Abstract

Newly acquired material from False Bay and Knysna Estuary (South Africa) yielded two species of the genus *Cyprideis*, namely *C. torosa* and *C. remanei*. The significance of these two new records, and the distribution of *Cyprideis*-species in Africa are discussed.

Key-words: Ostracoda, *Cyprideis*, zoogeography, new record.

Introduction

Cyprideis torosa (JONES, 1850) is a common brackish water species occurring in Europe, west and central Asia, and in Africa. The distribution of the species in Africa was discussed in a previous paper (WOUTERS, 2002), with special emphasis on a new record from the Seychelles. Newly acquired material of two *Cyprideis*-species, namely *C. torosa* (JONES, 1850) and *C. remanei* KLIE, 1940 from South Africa, is studied in the present paper. The distribution area of both species is extended much further to the south by these new records.

Material

The following material was used in this study.

1. South Africa, KwaZulu-Natal, False Bay (side-arm of Lake St. Lucia). Leg.: K. MARTENS, 26 Oct. 1994 (station 69). Three males with remnants of soft parts and three female carapaces, without soft parts, of *Cyprideis torosa* (JONES, 1850)(O.C. 2818-2823).
2. South Africa, Western Cape, Knysna Estuary, Ashford, Paradysstrand. Leg.: M. BOSSELAERS, 9 Aug. 2000 (station 3). One female and two males with soft parts, of *Cyprideis remanei* KLIE, 1940 (O.C. 2815-2817).

All material studied is deposited in the Ostracod Collection (O.C.) of the Royal Belgian Institute of Natural Sciences, Brussels (Belgium).

Discussion

1. *Cyprideis torosa* (JONES, 1850)

The species is common to very common in northern Africa in a large number of Mediterranean and in some inland localities, in Morocco, Algeria, Tunisia, Libya and Egypt. A special locality is Lake Qarun (Fayum, Egypt) from which BASSIOUNI *et al.* (1985, 1986) reported the species as *Cyprideis sohni* BASSIOUNI, 1979. Along the western coast, *C. torosa* occurs on the Canary Islands (BALTANAS & GARCIA-AVILES, 1993, BEYER *et al.*, 1997). Further to the south, the species has been recorded from Senegal and Gambia. (CARBONNEL, 1982, CARBONEL *et al.*, 1984, WITTE, 1993). The southernmost record in continental Africa is Lake Turkana, Kenya (KLIE, 1939, LINDROTH, 1956, KILENYI & WHITTAKER, 1974 and COHEN, 1986).

In a recent paper, WOUTERS (2002) discussed the status of *C. torosa* from the Seychelles. The specimens from this locality were identified as *C. torosa* because of the remarkable similarity of the appendages with those of European populations (type region of the species). The valves, however, are somewhat different. They are more oblong, smooth, and lack the postero-ventral spine in the male right valve.

The new material from False Bay has appendages that are very similar to European material. The male right first leg exhibits the typical «split seta», but has a long terminal claw. As a matter of fact, when comparing specimens from False Bay with material from the Netherlands, Belgium, Egypt and the Seychelles, the South African specimens have the longest claws of all. The distal shield, with its curved chitinized structure, the dorsal lobe, the copulatory process and the central lobe are all very similar to specimens from Europe. Even the small ventro-central triangular process, also observed in other European and African populations of the species, is present in the False Bay material.

The valves are more elongate than European *C. torosa*, but less than the specimens from the Seychelles. The valves are faintly punctuated, and the male right valve shows a small postero-ventral spine. As a whole, one could say that valves of the False Bay material are externally more similar to European specimens than the Seychelles material.

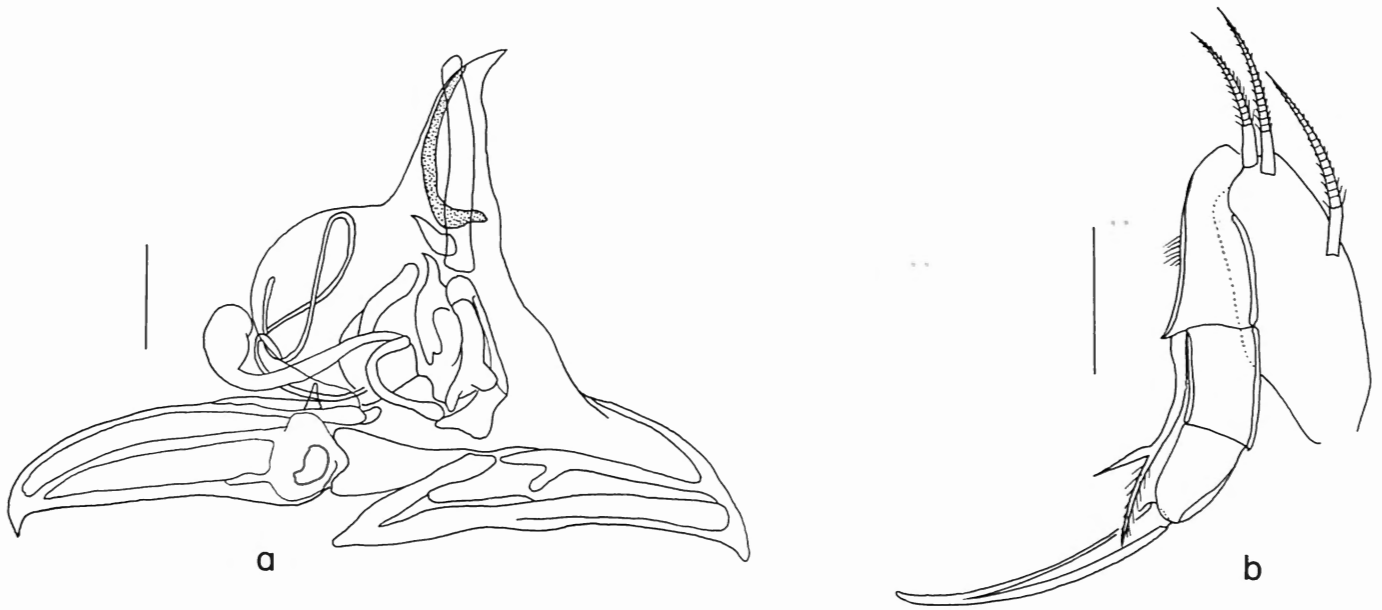


Fig. 1. *Cyprideis torosa* (JONES, 1850). False Bay. a. Hemipenis (distal part)(O.C. 2820). b. Male right first leg (O.C. 2819). Scale: 50 μm .

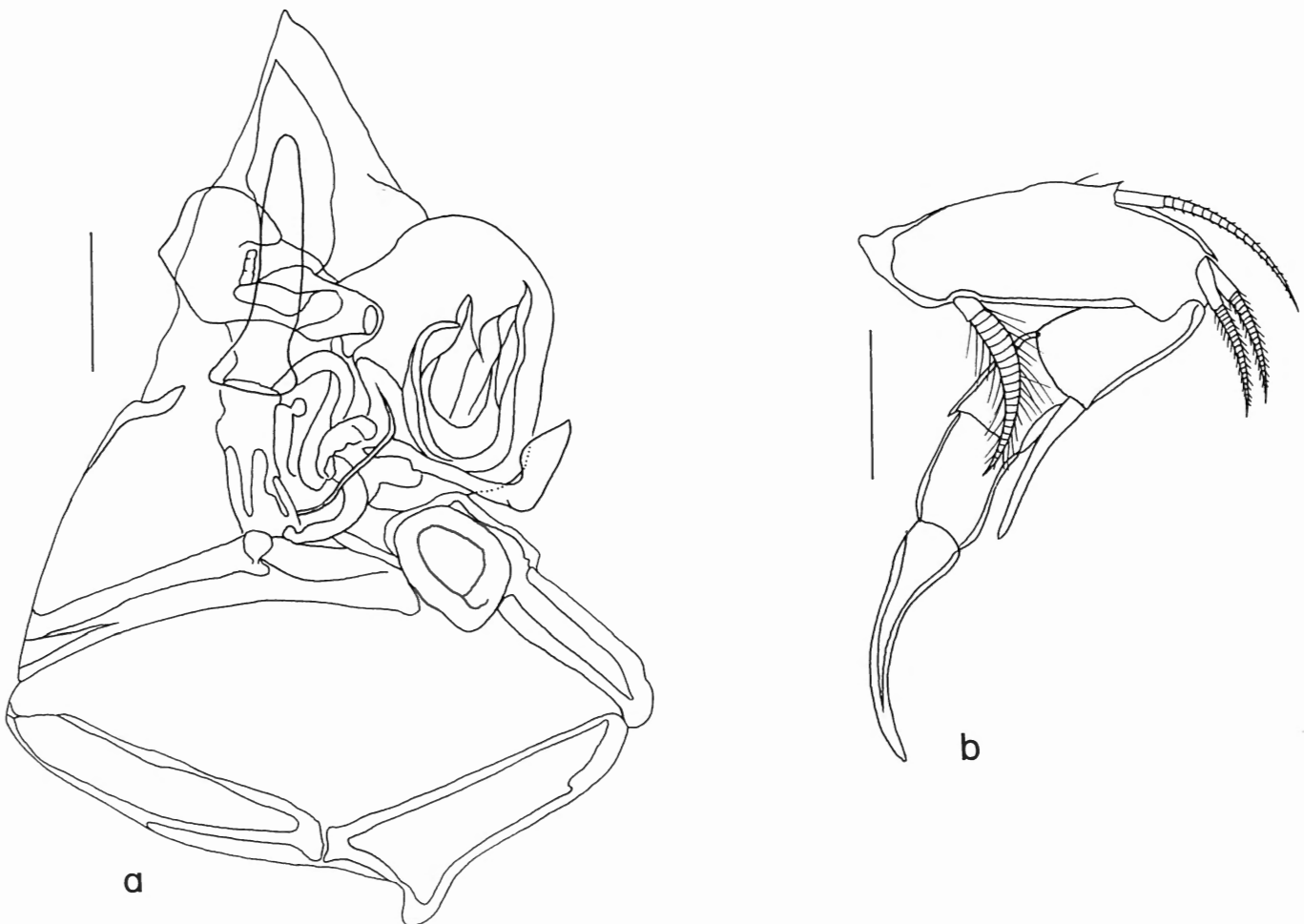


Fig. 2. *Cyprideis remanei* KLIE, 1940. Knysna Estuary, Ashford. a. Hemipenis (O.C. 2816). b. Male right first leg (O.C. 2817). Scale: 50 μm .

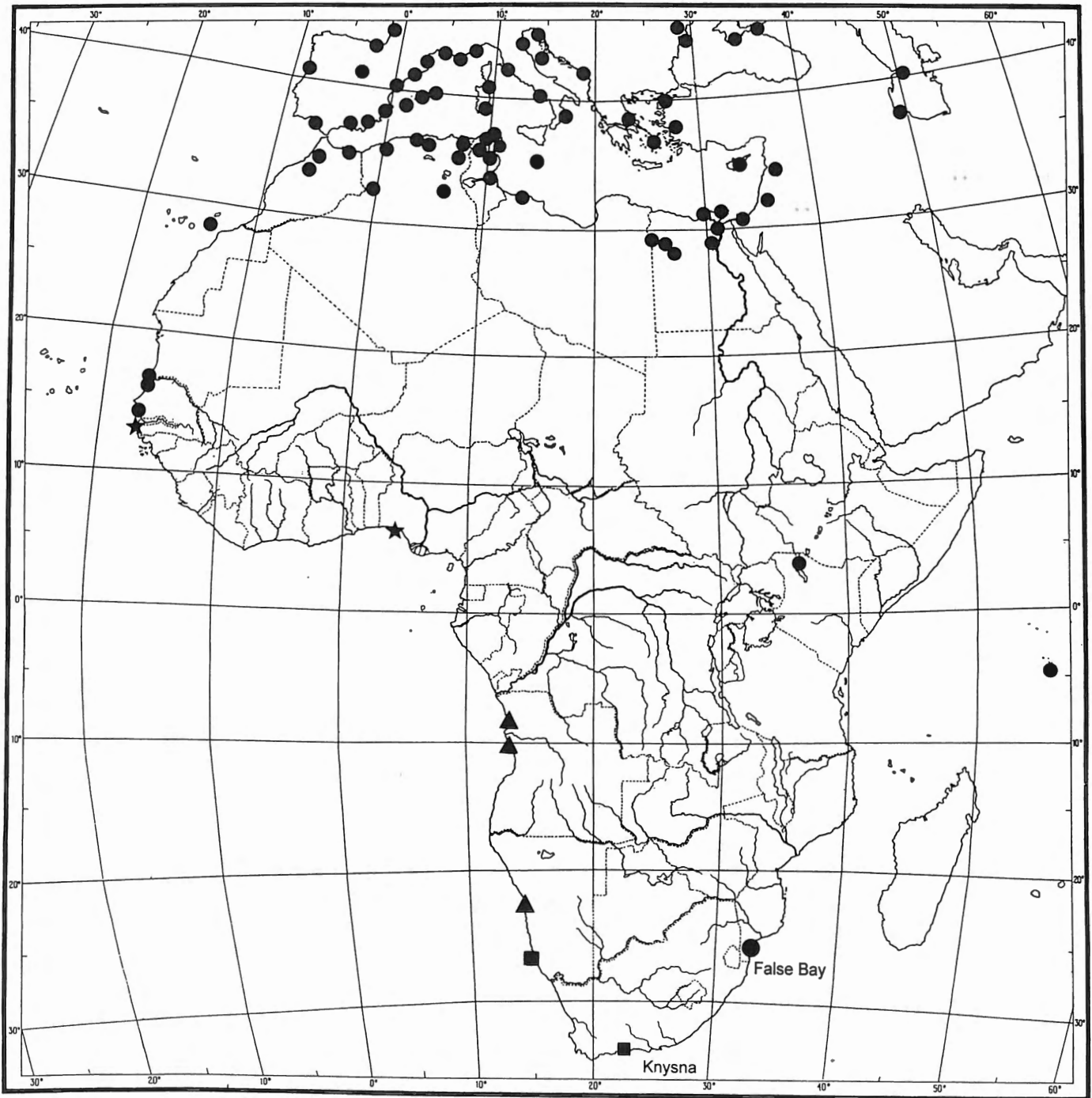


Fig. 3. Distribution of *Cyprideis*-species in Africa (and S. Europe & SW Asia). Circles: *C. torosa* (JONES, 1850); squares: *C. remanei* KLIE, 1940; triangles: *C. limbo-costata* HARTMANN, 1974; stars: *C. nigriensis* OMATSOLA, 1970. *Cyprideis*-species of Lake Tanganyika omitted.

Until now Silhouette Island (the Seychelles) was the southernmost known locality of *Cyprideis torosa*. The finding of new material in South Africa constitutes a significant range extension of the species. It may be useful to remind here that the northernmost locality is Kola Peninsula, near Murmansk, within the Arctic circle, at ca 69° N (ALADIN, 1989), and that the southernmost locality of the species is now False Bay, at ca 28° S.

2. *Cyprideis remanei* KLIE, 1940

This species was originally described from Lüderitz Bay in Namibia. Later, the species was recorded again from the same locality by HARTMANN (1974). Until now no further records of this species have been published. The new specimens from Knysna Estuary, however, can unequivocally be attributed to this species, because of the characteristic morphology of the hemipenis. Furthermore, the species does not exhibit a «split seta», and therefore is probably not closely related to *C. torosa*. It is somewhat surprising that *C. remanei*

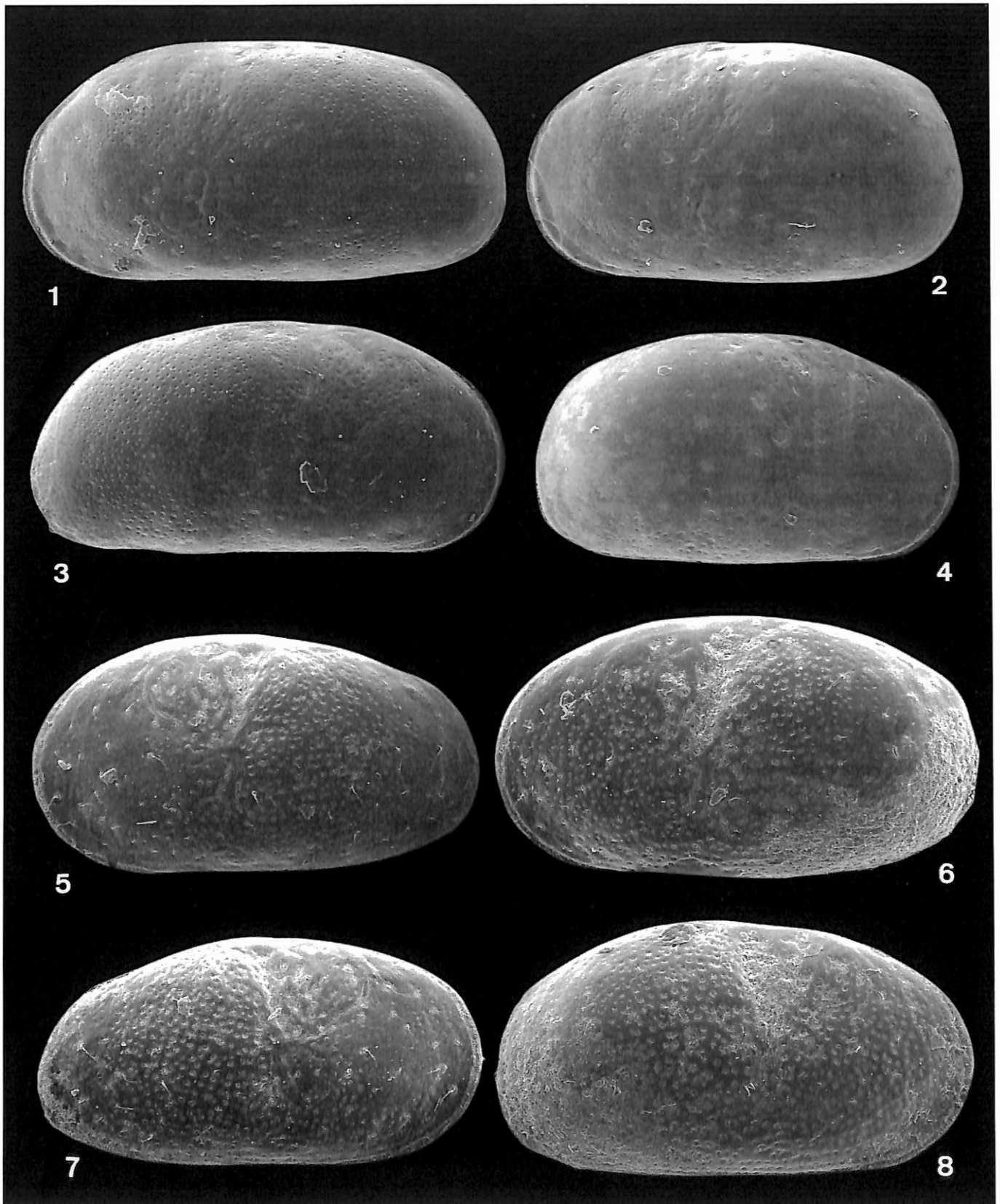


Plate 1. Figs 1-4. *Cyprideis torosa* (JONES, 1850), False Bay, X 80. Figs 5-8. *Cyprideis remanei* KLIE, 1940, Knysna Estuary, Ashford, X 105.

Fig. 1. Left valve male (O.C. 2819). Fig. 2. Left valve female (O.C. 2822). Fig. 3. Right valve male (O.C. 2819). Fig. 4. Right valve female (O.C. 2822). Fig. 5. Left valve male (O.C. 2816). Fig. 6. Left valve female (O.C. 2815). Fig. 7. Right valve male (O.C. 2816). Fig. 8. Right valve female (O.C. 2815).

was not recorded by BENSON & MADDOCKS (1964) in their monography on ostracods of Knysna Estuary. This new record is the second locality of the species.

3. Other *Cyprideis*-species

There are two other species occurring along the West African coast, namely *C. limbocostata* HARTMANN, 1974 and *C. nigeriensis* OMATSOLA, 1970.

C. limbocostata was described from a mangrove area near Luanda (Angola), but other living populations were found in several localities between Cacucaco (N. of Luanda, Angola) and Sandwich Harbour (S. of Walvis Bay, Namibia). According to HARTMANN (1974), this species is closely related to *C. remanei*.

C. nigeriensis was described from Lagos Lagoon in Nigeria, but was also recorded from Senegal and the Gambia by MONTEILLET *et al.* (1982), CARBONNEL (1982, 1986) and by WITTE (1993).

According to HARTMANN (1974, p. 269), the genus *Cyprideis* is completely absent along the southern and eastern coast of South Africa, because it is replaced here by the genus *Sulcostocythere*. This hypothesis is contradicted by the finding of *Cyprideis remanei* in Knysna Estuary (southern coast) and of *C. torosa* in False Bay (eastern coast). In both localities, the two *Cyprideis*-species occur together with *Sulcostocythere knysnaensis* BENSON & MADDOCKS, 1964.

Fig. 3 illustrates the distribution of *Cyprideis*-species in Africa.

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