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The collection TERQUEM (1878) : "Les Ostracodes du Pliocene Superieur de l'Ile de Rhodes"; a preliminary revision.

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During a long period it was generally accepted that the collection TERQUEM was either destroyed or lost. Recently, nevertheless, this collection has been found again. It is deposited in the "Laboratoire de Micropaleontologie" of the "Museum d'Histoire Naturelle" at Paris.

I am highly indebted to Dr. Y. LE CALVEZ for all the facilities I received during my stay at the "Museum", and for the permission she gave me to publish this note.

Sincere thanks are also due to Prof. W.P. VAN LECKWIJCK (Leuven) and to Dr. L. VAN DE POEL (Leuven) for their instructive advice.

In 1878 TERQUEM described 98 species and "varieties", and 91 of these taxa were new.

The collection TERQUEM is far from complete. All that is left are 38 slides; two of the 38 slides appeared to be empty.

The ostracods are attached in cardboard micropaleontological slides.

The text on the slides is written with ordinary ink.

According to Dr. LE CALVEZ (personal communication) the hand-writing would be the original hand-writing of TERQUEM.

The following list shows what is left from the original collection.

Symbols: + present in the collection

(+) empty slide

+	<i>Cypris propinqua</i>	+	<i>Cythere cribrata</i>
	<i>Pontocypris sagittula</i>	+	<i>Cythere squamosa</i>
	<i>Paracypris? aequalis</i>	+	<i>Cythere bisinuata</i>
+	<i>Argillaecia? lithodomoides</i>		<i>Cythere fornicata</i>
+	<i>Bairdia phaseola</i>		<i>Cythere connata</i>
+	<i>Bairdia subulata</i>	+	<i>Cythere crenulosa</i>
	<i>Bairdia rustica</i>		<i>Cythere geniculata</i>
+	<i>Bairdia fornicata</i>	+	<i>Cythere biangulata</i>
	<i>Bairdia subdeltoidea MÜNSTER</i>	+	<i>Cythere excavata</i>
+	var. supra-dentata	(+)	<i>Cythere signata</i>
	var. infr-dentata		<i>Cythere labiata</i>
+	var. angusta		<i>Cythere lumbricularis</i>
	var. conformis		<i>Cythere marginata</i>
	<i>Bairdia concinna</i>	+	<i>Cythere conularis</i>
	<i>Cytherella fischeri</i>		<i>Cythere galeiformis</i>
+	<i>Loxoconcha rhomboides</i>		<i>Cythere proxima</i>
+	<i>Cococoncha gibberosa</i>		<i>Cythere lacryma</i>
+	<i>Loxoconcha aequalis</i>	+	<i>Cythere abscisa</i>
+	<i>Xestoleberis ovulum</i> ♂		<i>Cythere inflata</i>
	<i>Xestoleberis ovulum</i> ♀		var. plicata
	<i>Xestoleberis angustata</i>		var. gibba
	<i>Xestoleberis piriformis</i>		<i>Cythere hieroglyphica</i>
	var. fabacea		<i>Cythere terebrata</i>
+	var. obliqua	+	<i>Cythere amoena</i>
	<i>Cythere oliviformis</i>		<i>Cythere cornufera</i>
	<i>Cythere subquadrata</i>	+	<i>Cythere contracta</i>
	<i>Cythere gibberosa</i>	+	<i>Cythere radiola</i>
+	<i>Cythere dispar</i>		<i>Cythere intorta</i>
	<i>Cythere praelonga</i>	+	<i>Cythere cuneiformis</i>
	<i>Cythere irregularis</i>		<i>Cythere conoidea</i>
	<i>Cythere fabacea</i>	+	<i>Cythere biflexa</i>
	<i>Cythere cordiformis</i>		<i>Cythere nudicosta</i>

	<i>Cythere candida</i>		<i>Cythere spinigera</i>
+	<i>Cythere princeps</i>		<i>Cythere deleta</i>
+	<i>Cythere monile</i>		<i>Cythere petricosa</i>
+	<i>Cythere triplicata</i>		<i>Cythere triseriata</i>
+	<i>Cythere flagellum</i>		<i>Cythere margaritifera</i>
(+)	<i>Cythere propinqua</i>		<i>Cythere jonesi</i> BAIRD
+	<i>Cythere senilis</i> JONES		<i>Cythere ceratoptera</i> BOSQUET
+	<i>Cythere affinis</i>		<i>Cythere cristata</i>
+	<i>Cythere retiformis</i>		<i>Cytheridea hebertiana</i>
	<i>Cythere numerata</i>		<i>Cytheridea hexagona</i>
+	<i>Cythere exornata</i>		<i>Cytheridea tuberculata</i>
+	<i>Cythere corrugata</i> REUSS		<i>Cytheridea sexangularis</i>
	<i>Cythere flexuosa</i>		<i>Cytheridea pinguis</i> JONES
	<i>Cythere intricata</i>		<i>Cytheridea mulleri</i> MUENSTER
	<i>Cythere tuberculata</i>		<i>Cytheridea elongata</i>
	<i>Cythere lamellosa</i>		<i>Cytheridea striatopunctata</i>
+	<i>Cythere tuberosa</i>		<i>Cytheridea ovoides</i>
	<i>Cythere conspicua</i>		<i>Cytheridea oblonga</i>

In the following table several data concerning the TERQUEM collection are mentioned:

1. The original determination by TERQUEM, 1878.
2. The number of carapaces or valves present in the collection; symbols: Car:carapace; LV: left valve; RV: right valve; br: the specimen is broken.
3. State of preservation of the specimens in the collection.
4. Present determination: a preliminary revision.
5. Remarks: the numbers refer to the subsequent systematic or taxonomic remarks we made concerning the species of TERQUEM.

Original determination by TERQUEM, 1878	No valves carapaces	State of Preservation	Present determination	Remarks
<i>Cypris propinqua</i>	1 car.	good	<i>Cytheretta subradiosa</i> (ROEMER, 1838)	
<i>Argillacea 2 lithodomoides</i>	1 LV 1 RV br.	rather good	<i>Cushmanidea turbida</i> (MUELLER, 1894)	(1)
<i>Bairdia phaseola</i>	1 LV br. 1 RV br.	bad	<i>Loxococoncha</i> sp.cf.L. <i>turbida</i> MUELLER, 1912	
<i>Bardia subulata</i>	1 LV	good	"Bairdia" formosa BRADY, 1868	
<i>Bairdia fornicata</i>	1 car.	good	<i>Aurila fornicata</i> (TERQUEM, 1878)	(2)
<i>Bairdia subdeltoidea MUESTER</i> <i>var. supra-dentata</i>	1 RV br. 2 fragments	rather good	<i>Bairdopillata supraden-</i> <i>tata</i> (TERQUEM, 1878)	(3)
<i>Bairdia subdeltoidea MUESTER</i> <i>var. angusta</i>	1 RV 1 LV 1 Car.	good	<i>Neonesidea longeva-</i> <i>ginata</i> (MUELLER, 1894) and <i>Neonesidea fre-</i> <i>quens</i> (MUELLER, 1894)	(4)
<i>Loxococoncha rhomboides</i>	1 LV	good	<i>Loxococoncha rhomboides</i> TERQUEM, 1878	(5)
<i>Loxococoncha gibberosa</i>	1 LV 1 RV	good	<i>Loxococoncha gibberosa</i> TERQUEM, 1878	(6)
<i>Loxococoncha aequalis</i>	2 RV 2 LV	good	<i>Loxococoncha tumida</i> BRADY, 1869	(7)
<i>Xestoleberis ovulum ♂</i>	2 fragments	bad	<i>Xestoleberis</i> sp.	
<i>Xestoleberis piriformis</i> <i>var. obliqua</i>	1 car.	good	<i>Xestoleberis</i> sq. ex gr. <i>X. margaritica</i> (BRADY, 1866)	
<i>Cythere dispar</i>	2 LV 1 RV 1 Car.	good	<i>Loxococoncha tumida</i> BRADY, 1869	(7)

Original determination by TERQUEM, 1878	No valves carapices	State of Preservation	Present determination	Remarks
Cythere cribrata	1 LV 1 RV	good	Echinocythereis (Rhodicythereis) cribrata (TERQUEM, 1878)	(8)
Cythere squamosa	1 Car.	very bad	Echinocythereis (Rhodicythereis) cribrata (TERQUEM, 1878) ?	(8)
Cythere bisinuata	1 Car.	good	Aurila bisinuata (TERQUEM, 1878)	(9)
Cythere crenulosa	1 Car.	good	Urocythereis crenulosa (TERQUEM, 1878)	(10)
Cythere biangulata	1 LV 1 RV	good	Cytheropteron biangulatum (TERQUEM, 1878)	(11)
Cythere excavata	1 RV	good	Echinocythereis (Rhodicythereis) cribrata (TERQUEM, 1878)	(8)
Cythere signata	empty slide	—	—	
Cythere conularis	1 Car.	good	Buntonia (Buntonia) conularis (TERQUEM, 1878)	(12)
Cythere abscisa	1 Car.	good	Aurila abscisa (TERQUEM, 1878)	(13)
Cythere amoena	3 fragments	very bad	—	
Cythere contracta	1 Car.	good	Neonesidea corpulenta (MUELLER, 1894)	(14)
Cythere radiola	1 Car.	good	Aurila radiola (TERQUEM, 1878)	(15)

Original determination by TERQUEM, 1878	No valves carpales	State of Preservation	Present determination	Remarks
Cythere cuneiformis	1 Car.	rather good	Caudites calceolatus (COSTA,	(16)
Cythere biflexa	3 Car.	good	Falunia (Hiltermannicythere) quadridentata (BAIRD, 1850) and Falunia sp.	(17)
Cythere princeps	1 Car.	good	Carinocythereis carinata (ROEMER, 1838)	(18)
Cythere monile	1 Car.	bad	probably Carinocythereis carinata (ROEMER, 1838)	(18)
Cythere triplicata	2 Car.	good	Costa batei (BRADY, 1866)	(19)
Cythere flagellum	2 fragments	very bad	probably Costa sp.	
Cythere propinqua	empty slide	—	—	(18)
Cythere semilis JONES, 1856	1 Car.	good	Carinocythereis carinata (ROEMER, 1838)	(18)
Cythere affinis	2 Car.	good	Carinocythereis carinata (ROEMER, 1838)	(18)
Cythere retiformis	1 LV 1 RV 3 Car.	good	Mutilus retiformis (TERQUEM, 1878)	(20)
Cythere exornata	1 LV 1 RV 2 Car.	good	Quadracythere (Tenedocythere) prava (BAIRD, 1850)	(21)
Cythere corrugata REUSS, 1850	2 Car.	good	Quadracythere (Tenedocythere) prava (BAIRD, 1850)	(21)
Cythere tuberosa	1 Car.	good	Carinocythereis antiquata (BAIRD, 1850)	(22)

- (1) Argillaecia lithodomoides TERQUEM, 1878 belongs to the genus Cushmanidea BLAKE, 1933 (?= Pontocythere DUBOWSKY, 1939), and therefore becomes a junior secondary homonym of Cushmanidea lithodomoides (BOSQUET, 1852). TERQUEM's species is identical to C. turbida (MUELLER, 1894), and according to the "International Code of zoological nomenclature" C. turbida can be used as replacement name.
- (2) Bairdia fornicata TERQUEM, 1878 belongs to the genus Aurila POKORNY, 1955. The species shows close resemblance to Aurila cruciata cruciata (RUGGIERI, 1950) (see also SISSINGH, 1972, p.114, pl. 8, fig. 6.).
- (3) Bairdia subdeltoidea MUENSTER var. supra-dentata TERQUEM, 1878 has been reported by SISSINGH (1972, p.75, pl.2, fig. 10) as Bairdopillata (Bairdopillata) supradentata (TERQUEM), and his figure corresponds very well with the specimen in the TERQUEM-collection. This specimen is broken at its postero-dorsal margin.
- (4) Bairdia subdeltoidea MUENSTER var. angusta TERQUEM, 1878 is a junior homonym of Bairdia angusta SARS, 1866. In the TERQUEM-collection we found one left valve and two right valves which, according to us are identical to Neonesidea frequens (MUELLER, 1894) and one carapace belonging to Neonesidea longevaginata (MUELLER, 1894). The variety angusta of TERQUEM has to be rejected because of homonymy, and it will depend on the choice of a lectotype whether N. frequens or N. longevaginata is the first junior synonym of TERQUEM's species, and therefore can be used as replacement name.
- (5) Loxoconcha rhomboides TERQUEM, 1878 can be considered as a separate species. Concise description: valves thin and oblong; straight dorsal margin with a small elevation at the posterior cardinal angle; strongly curved postero-ventral margin and highly situated posterior extremity; the valve surface is finely punctuated; ventro-laterally a weak depression occurs.
- (6) Loxoconcha gibberosa TERQUEM, 1878 can be considered as a separate species. Concise description: rather small, very rounded valves; the dorsal margin of the left valve is arched; the ventral border is highly concave; the posterior extremity is blunt and highly situated; the valve surface is clearly punctuated; mainly in the ventro-lateral area the punctuations are arranged in a few rows parallel to the ventral margin.
- (7) Loxoconcha aequalis TERQUEM, 1878 according to us is a junior synonym of Loxoconcha tumida BRADY, 1869 (?= Loxoconcha ovulata (COSTA, 1853). Cythere dispar TERQUEM, 1878 is the same species as Loxoconcha aequalis TERQUEM and can also be considered as a junior synonym of L. tumida BRADY. TERQUEM (p. 96) mentions indeed a great resemblance between L. aequalis and C. dispar. Cythere gibberosa TERQUEM, 1878 has also been placed in synonymy with Loxoconcha tumida BRADY by RUGGIERI (1952, p. 75). Specimens of Cythere gibberosa are not present in the collection of TERQUEM.
- (8) Cythere cribrata TERQUEM, 1878 and Cythere excavata TERQUEM, 1878 and probably also Cythere squamosa TERQUEM, 1878 (badly preserved) belong to the same species. C. excavata TERQUEM is a junior homonym of Cythere excavata M'COY, 1844 and therefore has to be rejected.

C. cribrata belongs to the subgenus Rhodicythereis SISSINGH, 1972. Echinocythereis (Rhodicythereis) cribrata (TERQUEM, 1878) differs from the smooth E. (R.) ruggieri SISSINGH, 1972 and from the papillate E. (Rhodicythereis) sp. (sensu SISSINGH, 1972) by its diffuse reticulation on the valves.

(9) Cythere bisinuata TERQUEM, 1878 belongs to the genus Aurila POKORNY, 1955. Aurila aspidoides ULICZNY, 1969 shows close resemblance to TERQUEM's species, and according to us may be regarded as a junior synonym.

(10) Cythere crenulosa TERQUEM, 1878 belongs to the genus Urocythereis RUGGIERI, 1950.

Urocythereis margaritifera alba ULICZNY, 1969 shows resemblance to TERQUEM's species, and it is not impossible that it has to be seen as a junior synonym.

(11) Cythere biangulata TERQUEM, 1878 is considered here, under reservation, as belonging to the genus Cytheropteron SARS, 1866.

The species is characterised by a winglike ventro-lateral expansion. The dorsal and ventral margins are tapering toward the posterior end. The valve surface is very finely reticulated. The hinge consists in the left valve of two terminal crenulate teeth and a finely crenulated median groove. (This is a case of hinge reversal).

We found this species also in the Pliocene of N.E.Tunisia.

(12) Cythere conularis TERQUEM, 1878 belongs to the genus Buntonia HOWE, 1935. Buntonia giesbrechtii robusta RUGGIERI, 1954 has to be considered as a junior synonym of TERQUEM's species.

(13) Cythere abscisa TERQUEM, 1878 belongs to the genus Aurila POKORNY, 1955. The carapace is oblong, with a straight dorsal margin and a ventrally situated caudal process. The valve surface is punctuated with widely spaced, round punctuations. TERQUEM's species resembles Aurila interpretis ULICZNY, 1969.

(14) Cythere contracta TERQUEM, 1878 is a junior homonym of Cythere contracta BRADY, 1870 and therefore has to be rejected. The specimen in the TERQUEM-collection is a Neonesidea corpulenta (MUELLER, 1894). This name can serve as replacement name.

(15) Cythere radiola TERQUEM, 1878 belongs to the genus Aurila POKORNY, 1955. TERQUEM's species shows resemblance to Aurila POKORNY, 1955. TERQUEM's species shows resemblance to Aurila convexa emathiae ULICZNY, 1969.

(16) Cythere cuneiformis TERQUEM, 1878 according to us is a junior synonym of Caudites calceolatus (COSTA, 1853).

Furthermore C. cuneiformis TERQUEM is a junior homonym of Cythere cuneiformis BRADY, 1866.

(17) In the slide of Cythere biflexa TERQUEM, 1878 we determined two species: Falunia (Hiltermannicythere) quadridentata (BAIRD, 1850) (one carapace and one left valve) and Falunia sp. (two carapaces). These carapaces might be juvenile specimens. A lectotype has to be chosen to decide which of both species present in the slide has to be considered as Cythere biflexa.

(18) Cythere princeps TERQUEM, 1878, Cythere senilis JONES, 1856 (sensu TERQUEM, 1878, non JONES, 1856) and Cythere affinis TERQUEM, 1878 may be regarded as belonging to the same species:

Carinocythereis carinata (ROEMER, 1838), and therefore are junior synonyms.

Furthermore Cythere affinis TERQUEM is a junior homonym of Cythere affinis BRADY, 1869 and has to be rejected.

The specimen of Cythere monile TERQUEM, 1878 is very badly preserved. Probably this species too has to be considered as a junior synonym of Carinocythereis carinata (ROEMER).

The text written on the slides of the collection TERQUEM is the following:

- Cythere princeps TERQUEM, Type.
- Cythere senilis JONES, 1856, pr. C. monile TERQUEM, 1878, Figure.
- Cythere senilis JONES, 1856, pr. C. propinqua TERQUEM, 1878, Figure.
- Cythere senilis JONES, Figure.
- Cythere senilis JONES, 1856, pr. C. affinis TERQUEM, 1878, Type.

The slide of Cythere propinqua TERQUEM, 1878 contains no specimens at all. It has to be mentioned that Cythere propinqua TERQUEM is a junior homonym of Cythere propinqua BOSQUET, 1854. On the basis of the specimens in the collection we noticed that TERQUEM did not take into account the possibility of intraspecific variation. For each form he made a new species.

(19) Cythere triplicata TERQUEM, 1878 may be regarded as a junior synonym of Costa batei (BRADY, 1866).

(20) Cythere retiformis TERQUEM, 1878 belongs to the genus Mutilus NEVIANI, 1928. Mutilus dohrni ULICZNY, 1969 (p.52; pl.3, fig. 6 and pl.14, fig.8) is identical to TERQUEM's species and has to be regarded as a junior synonym.

Mutilus retiformis (TERQUEM, 1878) as described and figured by RUGGIERI (1956, p.169; fig. 2 and 3), by ULICZNY (1969, p. 53; pl.14, fig. 8) by SISINGH (1972p124,pl.9,fig.12) and by RUGGIERI and SYLVESTER-BRADLEY(1973) does not resemble the species of TERQUEM but clearly is an other (perhaps even two) species.

(21) Cythere exornata TERQUEM, 1878) and Cythere corrugata REUSS, 1850 (sensu TERQUEM, 1878, non REUSS, 1850) both may be considered as belonging to Quadracythere (Tenedocythere) prava (BAIRD, 1850).

We are somewhat surprised by TERQUEM's decision to use two different species names. The specimens in his collection are almost identical.

(22) Cythere tuberosa TERQUEM, 1878 belongs to the genus Carinocythereis RUGGIERI, 1956.

The specimen in the collection corresponds with Carinocythereis antiquata (BAIRD, 1850) as it has been figured by ULICZNY (1969, pl. 16, fig. 5).

Note on the stratigraphical position:

All the slides of the collection bear the indication: "Pliocene Superieur, Rhodes".

According to **SISSINGH** (1972), it is not certain whether the material of **TERQUEM** is of Pliocene and/or of Pleistocene age. Furthermore the exact sample locality of **TERQUEM** is unknown.

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