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CONTRIBUTION TO THE KNOWLEDGE OF THE TANAIDACEA (CRUSTACEA) OF BRAZIL. 1. THE FAMILY TANAIDAE DANA, 1849 *

JÜRGEN SIEG[1]

ZUSAMMENFASSUNG

Die Nachuntersuchung der von den brasilianischen Küsten gemeldeten Vertreter der Familie Tanaidae ergab, dass lediglich Hexapleomera robusta, Sinelobus stanfordi *und* Zeuxo coralensis *vertreten sind. Das Vorkommen von* Tanais dulongi *ist sehr fragwürdig. Ein Bestimmungsschlüssel der Arten wird gegeben und die Synonymie wird diskutiert.*

ABSTRACT

A redetermination of the members of the family Tanaidae recorded from the coasts of Brazil shows that only Hexapleomera robusta, Sinelobus stanfordi *and* Zeuxo coralensis *occur in the region.* Tanais dulongi *is listed as doubtful. A key is presented and the synonymies of each species discussed.*

INTRODUCTION

When preparing a monograph of the Tanaidae (Sieg, 1980), I tried to see as much as possible of the known material.

Unfortunately there was no possibility at that time, to get material recorded from Brazil. Howewer, since then I have been able to obtain some samples from the region. For this, I have to thank Setuko Masunari, who sent me materials mainly collected by Prof. Dr. Liliana Forneris. She also was very helpful by getting me in contact with Dr. I. Silva Brum (Museu Nacional, Rio de Janeiro), enabling me to examine all material so far mentioned from the coasts of Brazil.

DISCUSSION OF THE SPECIES RECORDED FROM THE COAST OF BRAZIL

The following records are known from the coastal waters of Brazil:

Anatanais ohlini (Silva Brum, 1973: 8-9)
Hexapleomera robusta (Sieg, 1980: 129)
Sinelobus stanfordi (Lang, 1956: 255-256)
Tanais cavolinii (Silva Brum, 1969: 602-604, 1973: 10)
Zeuxo sp. (Masunari, 1976: 18-86)

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[1]Adress: Dr. Jürgen Sieg, Universität Osnabrük — Abt. Vechta —, Driverstr. 22, 2848 Vechta, Germany.

All these taxa — although in the absence of actual specimens — are discussed in the "Taxonomische Monographie der Tanaidae Dana, 1849" (Sieg, 1980). So it was suggested that *Anatanais ohlini* is a synonym of *Zeuxo coralensis* (Sieg, 1980: 230). To the same species — but doubtfully — *Zeuxo* sp. is referred (l.c.:250). At that time it seemed that *Tanais cavolinii* was a synonym of *T. vanis* (l.c.:106, 110).

It has been possible to show that the suggestion of the attribution of *Zeuxo* sp. to *Zeuxo coralensis* was correct (Sieg & Masunari, 1980). From the material received from Dr. I. Silva Brum it now is clear that *"A. ohlini"* (sensu Silva Brum) is identical to *Z. coralensis*. The reexamination of *"T. cavolinii"* (sensu Silva Brum) showed to my surprise that this species does not belong to the genus *Tanais* but also to *Zeuxo*. The specimens I have seen belong with no doubt to *Zeuxo coralensis*.

Thus only three species are positively known from the coasts of Brazil: *Hexapleomera robusta*, *Sinelobus stanfordi* and *Zeuxo coralensis*. It should not be forgotten, however, that there migth be an occurrence of *Tanais dulongi* (= *T. cavolini*). Giambiagi (1922, 1923) gives some records for the coasts of Argentina, which now seem to be very doubtful. On the other hand, the distribution pattern of *T. dulongi* indicates that the species probably occurs outside of the 20°-July-isotherm on both sides of the Equator (Sieg, 1980a). Therefore, records can be expected for the southernmost coasts of Brazil.

Key to the species known from Brazil

1. Pleon with 4 pleonites (tergites) visible dorsally, plus pleotelson (to be seen best in lateral view!); especially the first and second pleonite with one row of long, feathered vertical setae on each side 2
— Pleon with 5 pleonites (tergites) visible dorsally, plus pleotelson; first and second pleonite as well as the third with some feathered hairs laterally (there exists only a "reduced" row of hairs!) 3
2. Terminal lobe of labium missing; uropods 4-segmented (basis and three joints in the endopodite). Sexual dimorphism (Cephalothorax, Che) strongly developed ..... 2 *Sinelobus stanfordi* (Richardson, 1905).
— Labium with terminal lobe. Uropods 3-segmented (basis and two joints in the endopodite of which the first is relatively long!); sexual dimorphism as well not developed as in the preceding species (occurrence very doubtful!) ..... *Tanais dulongi* (Audouin, 1826).
3. Pereonites 1-3 combined not longer than broad, terminal lobe of labium not well separated; chelae of male greatly enlarged and therefore cephalothorax of males in cross-section nearly triangular .... 1 *Hexapleomera robusta* (Moore, 1894).
4. Pereonites 1-3 combined longer than broad, terminal lobe of labium well separated; chelae of male not greatly enlarged and therefore cephalothorax of male normal; lacinia mobilis of right mandible present, small and tongue-like .... 3 *Zeuxo coralensis* (Sieg. 1980).

1. Species: **Hexapleomera robusta** (Moore, 1894).

(Figs. 1, 2, 7)

Bibliography and synonymy: See Sieg, 1980:122-123.

Remarks: Besides the first record from Ponta da Armação, Rio de Janeiro (Sieg, 1980) we now have a second one: Praia Adão e Eva, Niterói, Rio de

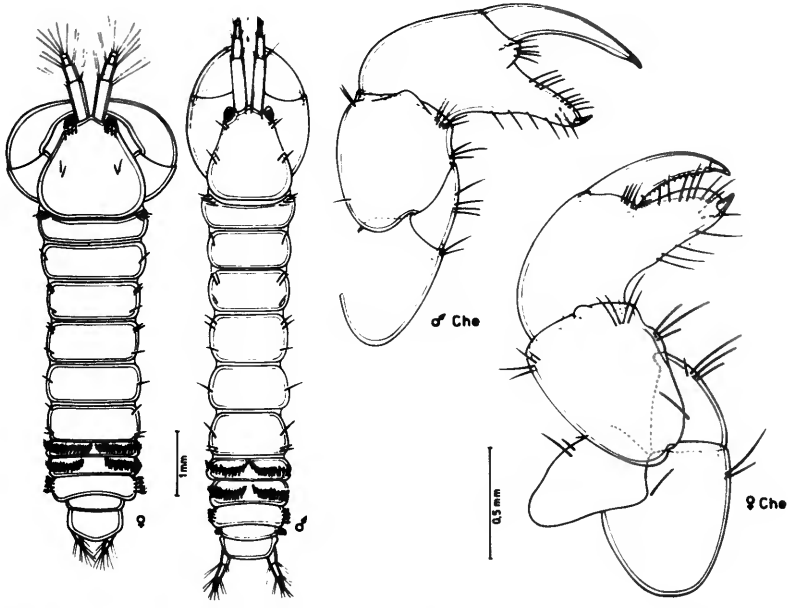

Fig. 1. *Hexapleomera robusta* (Moore, 1894).

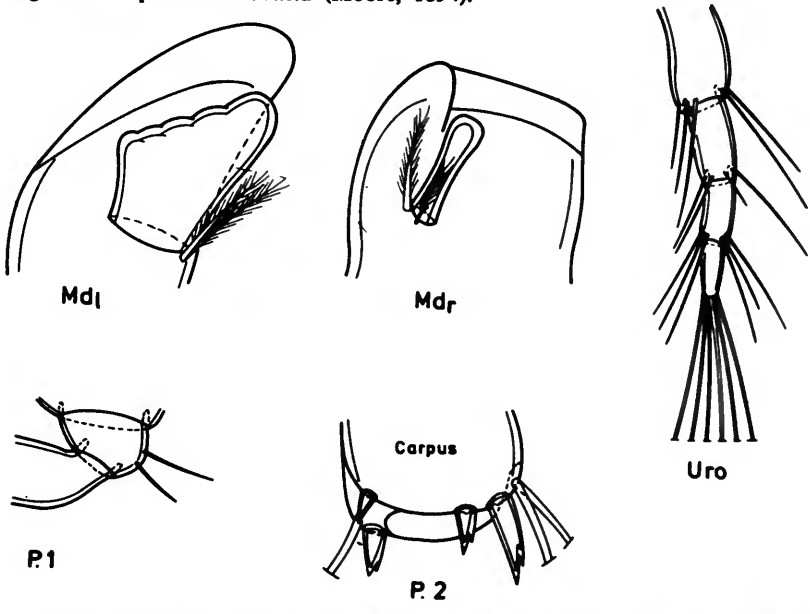

Fig. 2. *Hexapleomera robusta* (Moore, 1894), schematic drawings of the parts, important for determination.

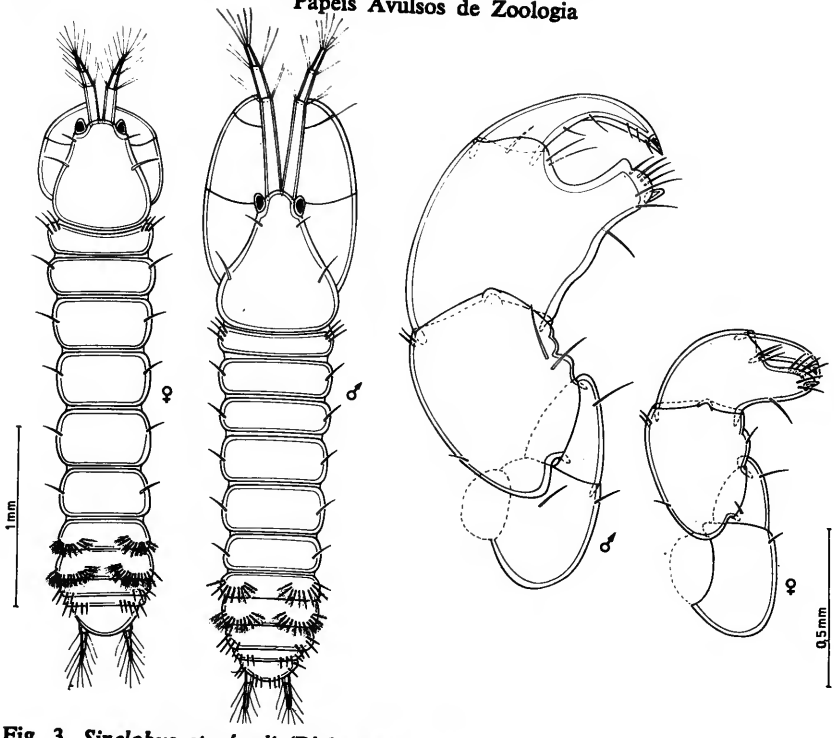

Fig. 3. *Sinelobus stanfordi* (Richardson, 1901).

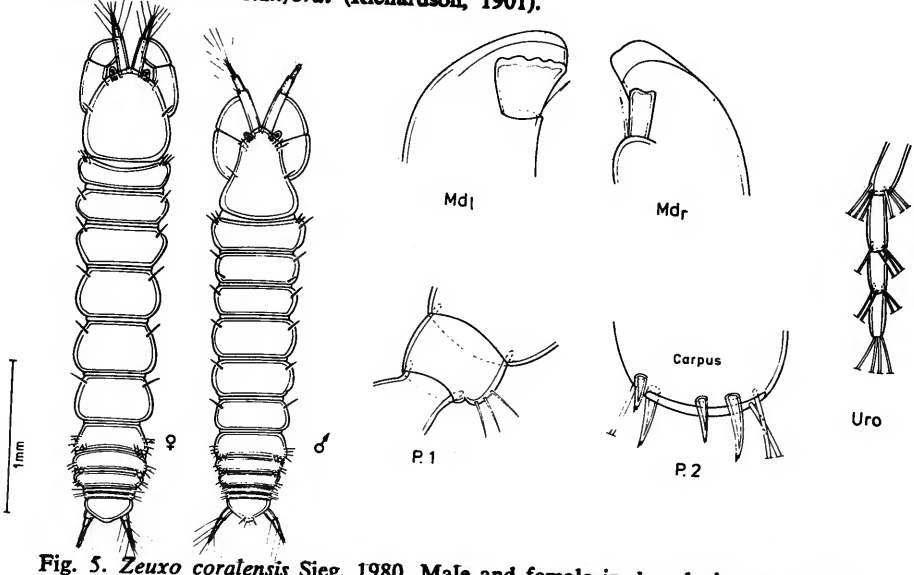

Fig. 5. *Zeuxo coralensis* Sieg, 1980. Male and female in dorsal view as well as the parts, important for determination.

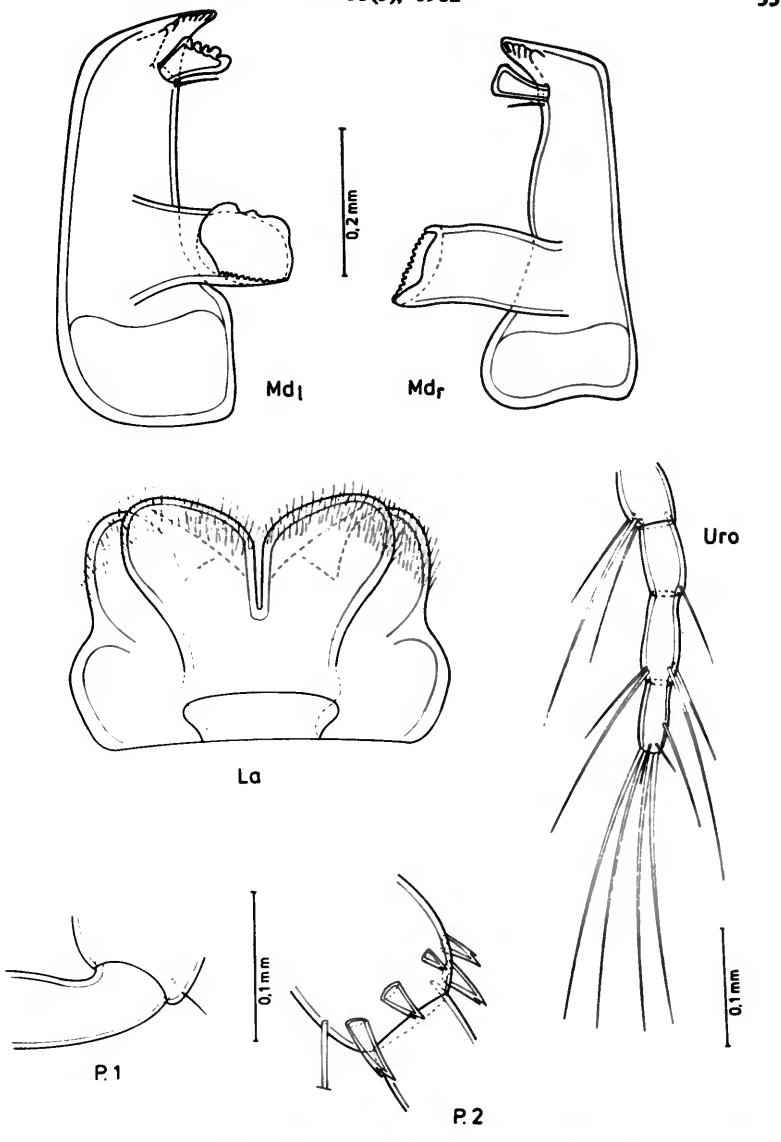

Fig. 4. *Sinelobus stanfordi* (Richardson, 1901), schematic drawings of the parts, important for determination.

Janeiro, 07.09.1975, 1 neuter, 7♀♀, 2♂♂, leg. Marylena Carvalho, det. Sieg. Of these, 1♂ and 2♀♀ are in Coll. Sieg and the remaining specimens in Coll. Silva Brum.

Distribution (Brazil): District Rio de Janeiro (Ponta da Armação, Praia Adão e Eva).

2. Species: **Sinelobus stanfordi** (Richardson, 1905).

(Figs. 3, 4, 7)

Bibliography and synonymy: See Sieg, 1980:60-61.

Remarks: This species may occur in the region of tidal waters all over the coasts of Brazil. Within the estuaries it may be found up the river till the beginning of the fresh water region.

Distribution (Brazil): Rio de Janeiro (Jacarepaguá Lagoon, Mello-Leitão, 1941; Mañé-Garzon, 1943); São Paulo (Cananéia, Lang, 1956).

3. Species: **Zeuxo coralensis** Sieg, 1980.

(Figs. 5, 7)

Bibliography and synonymy: See Sieg, 1980:225.

Remarks: As mentioned, the specimens recorded as *Zeuxo* sp. (Masunari, 1976), *"Tanais cavolinii"* (sensu Silva Brum) and *"Anatanais ohlini"* (sensu Silva Brum) belong to this species.

An indication that the last two pleonites have not been correctly interpreted by Silva Brum is given by the figures. After Silva Brum (1969:603, Fig. 16) the pleotelson of this species has two sutures laterally; these can only be interpreted as the borders of the fourth and fifth pleonite.

This species may occur all over the coasts of Brazil. It has been caught again at Praia da Urca, Baía de Guanabara: 2 neuters, 2 ♀♀, 11.10.1969, leg. Instituto de Biologia da U.F.R.J., Coll. Instituto de Biologia, det. Sieg. There is a further record: Ilha das Palmas, Santos, Sta. 13, 1♀ — interdital zone, associated with the bryozoan *Shizoporella* —, Sta. 20, 4♂♂, 9♀♀ — phytal —, 10.07.1975, leg. Prof. Dr. Liliana Forneris, Coll. Museu de Zoologia da Universidade de São Paulo.

Distribution (Brazil): Bahia, Arquipélago de Abrolhos (without exact locality information, as *Anatanais ohlini*, Silva Brum, 1973; Ponta dos Calderos, Ilha Redonda, as *Tanais cavolinii*, Silva Brum, 1973); Rio de Janeiro, Baía de Guanabara, Praia de Furna, Urca; Ilha do Governador, Praia do Zumbi, Praia do Catalão, all as *Tanais cavolinii*, Silva Brum, 1969; São Paulo, Ubatuba, Praia do Lázaro, as *Zeuxo* sp., Masunari, 1976; Santos, Ilha das Palmas.

Tanais dulongi (Audouin, 1826).

(Fig. 6)

Bibliography and synonymy: See Sieg, 1980:91-97.

Remarks: This species is easily recognized by its uropods (3-segmented, second relatively long) and pleon (four pleonites, strong rows of feathered hairs on the first two pleonites). It is extremely doubtful that this species occurs on the coasts of South America. It was not possible to examine the material mentioned by Giambiagi (1922, 1923); therefore I believe that *T. dulongi* only will be found under particular environmental conditions in Brazilian waters.

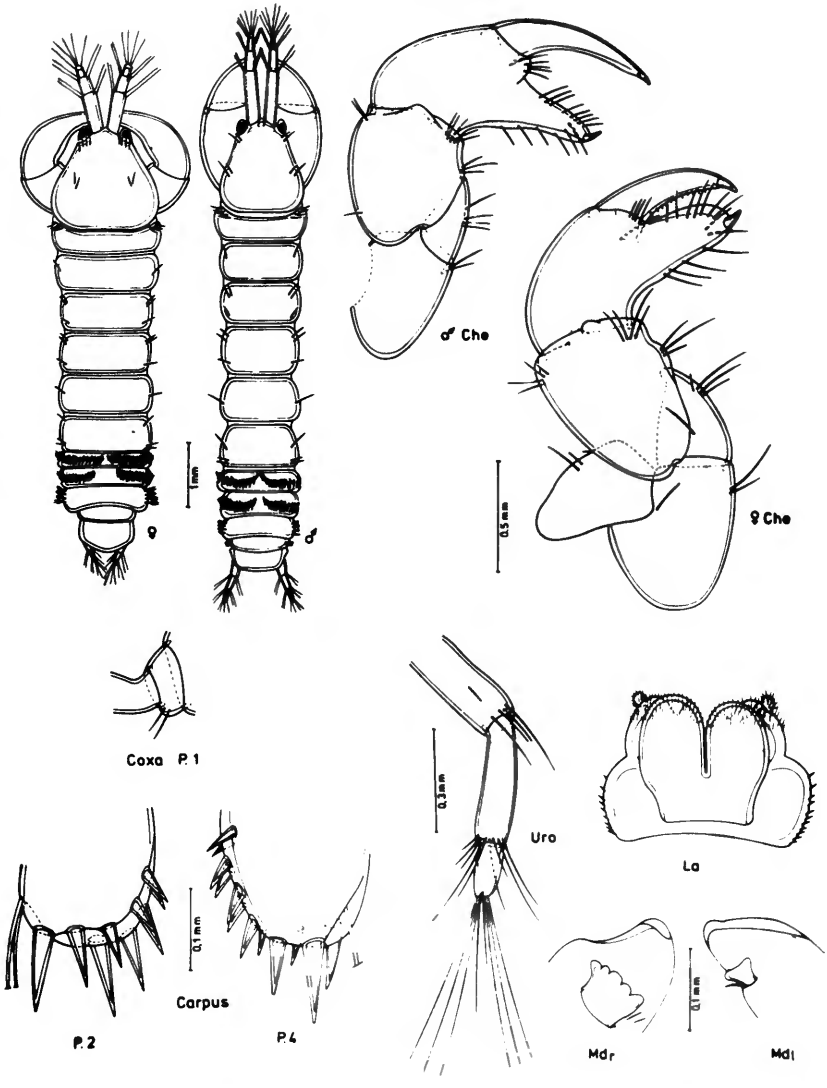

Fig. 6. *Tanais dulongi* (Audouin, 1826). Male and female in dorsal view as well as the parts, important for determination.

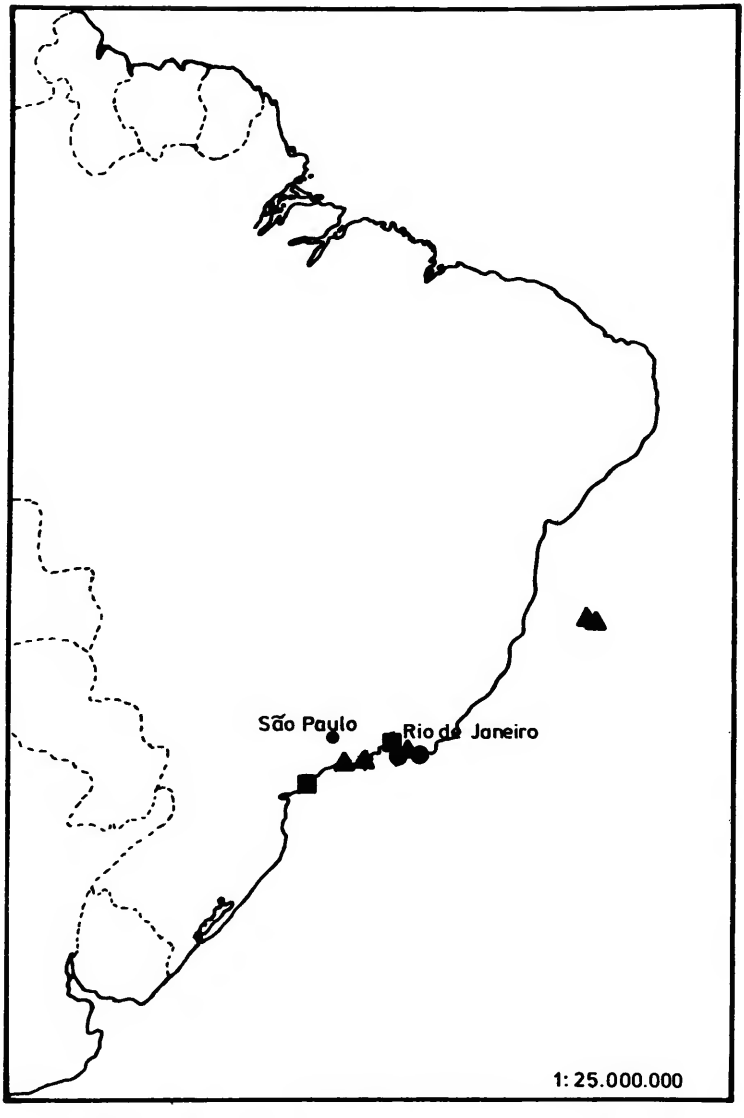

Fig. 7. Distribution map for the species of the family Tanaidae known from Brazil. ● *Hexapleomera robusta*, ■ *Sinelobus stanfordi*, ▲ *Zeuxo coralensis*.

Distribution: Brazil: ? South coast. Argentina: ? Patagonia (Puerto Madryn, Chubut, as *T. gallardoi*, Giambiagi, 1922 and as *T. cavolinii*, Giambiagi, 1923).

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