A Taxonomic Review of the Buccal-attaching Fish Parasite genus *Lobothorax* Bleeker, 1857 (Crustacea: Isopoda: Cymothoidae) with Description of a New Species from Southwestern India

Panakkool Thamban Aneesh¹*, Niel L. Bruce²,³, Appukuttannair Biju Kumar¹*, M. Raj Bincy⁴, and T. Mohanan Sreenath⁴

¹Department of Aquatic Biology & Fisheries, University of Kerala, Karyavattom, Thiruvananthapuram-695 581, Kerala, India.
²Correspondence: E-mail: anee3716@gmail.com (Aneesh)
³E-mail: bijupuzhayoram@gmail.com (Kumar)
⁴Biodiversity & Geosciences Program, Queensland Museum, PO Box: 3300, South Brisbane BC, Queensland 4101, Australia.
⁵Unit for Environmental Sciences and Management and Water Research Group (Ecology), North West University, Potchefstroom 2520, South Africa
⁶School of Ocean Science & Technology, Kerala University of Fisheries & Ocean Studies. E-mail: bincymraj.21@gmail.com (Bincy); sreenath@kufos.ac.in (Sreenath)

Received 22 August 2020 / Accepted 20 January 2021 / Published 6 April 2021
Communicated by Benny K.K. Chan

The genus *Lobothorax* Bleeker, 1857 is revised with the description of a new species collected from the gempylidaen fish *Promethichthys prometheus* (Cuvier, 1832) from the southwestern coast of India. A revised generic diagnosis is provided based on the redescription of the type species, *Lobothorax aurita* (Schioedte and Meinert, 1883) is here synonymised with *Lobothorax typus* Bleeker, 1857 based on the original description. *Lobothorax nicosmiti* Aneesh, Bruce and Kumar sp. nov. is described from the female stage and it is characterized by: pereonite 1 anterolateral expansion not extending to the anterior margin of cephalon; coarsely pitted pereonites dorsal surfaces; pereonites without dorsal median longitudinal ridges; anteriorly truncate cephalon; pleotelson about 0.6 times as long as wide, posterior margin weakly emarginate, broadly sub-truncate, lateral margins convex; maxilliped palp article 3 with three RS; pereopods basis much wider with prominent carina. A key to the species of *Lobothorax* Bleeker, 1857 is presented.

**Key words:** Fish parasite, Cymothoidae, *Lobothorax*, New species, Indian Ocean.

**BACKGROUND**

Studies on parasitic cymothoids in India have not progressed significantly since the taxonomic contributions of Barnard (1936) and Pillai (1954-1964). Since the works of Pillai (1964), only eight new species and the new genus *Brucethoa* Aneesh, Hadfield, Smit and Kumar, 2020 have been described from India, (Aneesh et al. 2019 2020a b c). Along with taxonomy, there have been few attempts made to study other aspects of cymothoid biology, such as distribution, moult, life cycle and hermaphroditic reproduction (Aneesh et al. 2015 2018; Helna et al 2019; Aneesh and Kappalli 2020).
**Lobothorax** Bleeker, 1857, is a poorly known fish parasitic cymothoid genus that attaches to the buccal cavity of the host fish, like several other cymothoid genera such as *Ceratothoa* Dana, 1852, *Cymothoa* Fabricius, 1793 and *Glossobius* Schioedte and Meinert, 1883. *Lobothorax* Bleeker, 1857 was erected as a monotypic genus for *Lobothorax typus* Bleeker, 1857. Schioedte and Meinert (1883) described the second species, *Lobothorax aurita* (Schioedte and Meinert, 1883), proposing *Saophra* Schioedte and Meinert, 1883 as a replacement name for *Lobothorax*, but the name *Saophra* was not subsequently accepted (Yu and Bruce 2006). The most recent addition to this genus was during the early 20th century by Richardson (1910), who described the third species, *Lobothorax laevis* Richardson, 1910. *Lobothorax* currently includes only three species.

*Lobothorax* has been reported from Jakarta, Java (as Batavia), Indonesia (Bleeker 1857; Schioedte and Meinert 1883); the Bay of Bengal (Barnard 1936); Ubay, Philippines (Schioedte and Meinert 1883; Richardson 1910; Trilles 2008); the South China Sea (Yu and Bruce 2006); and Miri, East Malaysia (Anandkumar et al. 2015). *Lobothorax typus* is the only species previously recorded from India, at Parangipettai, southeastern India (Rameshkumar et al. 2013).

The generic characters of *Lobothorax* have not been well understood or delimited. Yu and Bruce (2006) gave a generic diagnosis differentiating *Lobothorax* from the other morphologically similar buccal cymothoid genera such as *Cymothoa*, *Ceratothoa* and *Glossobius*. In recent decades cymothoid generic diagnoses have become increasingly precise and restrictive (e.g., Hadfield et al. 2013 2014). Recently, Martin et al. (2016) gave a world key to the marine buccal-attaching genera of the Cymothoidae. The description of the new species given here together with the descriptive data given by Yu and Bruce (2009) allows for a detailed generic description and diagnosis comparable to diagnoses for related genera.

**MATERIALS AND METHODS**

Specimens were collected from Munambam, Kerala, southwestern, India (10.1667°N, 76.1833°E). Specimens were removed from the buccal cavity of the host fish and preserved in 90% ethanol. The collecting, preserving, dissecting, mounting and drawing and digital inking were performed using the techniques described in Aneesh et al. (2019). The specimens were microphotographed using a multi-focusing dissection microscope Leica-M205A and image capturing software (Leica Application Suit). Sources for the fish taxonomy and host nomenclature were Fish Base (Froese and Pauly 2020) and Catalogue of Fishes (Fricke et al. 2020). The types and voucher specimens are deposited in the Western Ghat Field Research Centre of Zoological Survey of India, Kozhikode (ZSI/WGRC). The authority for the new species *Lobothorax nicosmiti* is here specifically identified as Aneesh, Bruce and Kumar.

**RESULTS**

**TAXONOMY**

**Suborder Cymothoida Wägele, 1899**

**Superfamily Cymothooidea Leach, 1814**

**Family Cymothoidae Leach, 1818**

**Genus Lobothorax** Bleeker, 1857


Type species: *Lobothorax typus* Bleeker, 1857; by monotypy.

Species included: *Lobothorax typus*, *Lobothorax laevis* Richardson, 1910; *Lobothorax nicosmiti* sp. nov.

Diagnosis: Female: Body elongate, about 3 times as long as wide, bilaterally symmetrical, margins subparallel, widest at pleonite 5; dorsally strongly vaulted. Cephalon immersed in pleonite 1; rostrum anteriorly produced, dorsoventrally flattened. Eyes prominent. Pleonite 1 anterolateral margin expanded, forming well-developed lobes. Pleonites 5–7 markedly shorter than pleonite 4. Coxae not overlapping adjacent pleonites. Pleonites 1 and 2 narrower than pleonites 3–5. Pleotelson as wide as pleon. Antenna and antennula subequal in size, slender, bases narrowly separated; antennula 8-articled, antenna 9-articled; antennula articles 1–3 similar in size and longer than other articles, terminal articles without setae. Mandible palp article 3 with RS. Maxilla with distinct medial and lateral lobes. Maxilliped without oostegite lobe. Pereopods 5–7 basis with raised carina. Brood pouch arising from coxae 1–4 and 6; posterior pocket absent. All pleopods lamellar, exopods with proximalateral lamella; pleopods 1–3 rami simple, 4–5 endopods with weak fleshy ridges or pockets. Pleopods peduncules all with developed lateral lobes. Uropod rami subequal in length, not extending beyond pleotelson posterior margin.

Remarks: Yu and Bruce (2006) provided a revised diagnosis to the genus with the redescriptions of the type species based on the specimens collected from the
South China Sea. *Lobothorax* is characterised by the strongly developed antero-lateral lobes on pereonite 1; the flattened rostrum; pereonites 5–7 being very short in comparison to pereonite 1–4; the antennula and antenna are both slender, with articles 1–3 longer than wide, and bases narrowly separated, not in contact; the eyes are prominent.

Other similar buccal-attaching genera differ from *Lobothorax* in the following characteristics: *Glossobius* Schioedte and Meinert, 1883 can be separated from *Lobothorax* by: the cephalon not being immersed in pereonite 1; pereonite 1 with anterolateral margins weakly produced or projecting laterally; cephalon anterolateral margins concave; pleopod exopod without proximolateral lamella (Martin et al. 2015). *Ceratothoa* Dana, 1852 differs from *Lobothorax* in: contiguous antennal bases and antennule article broad, expanded; pereonite 1 longest; body widest at pereonite 4 or 5; pleopod exopods without proximolateral lamella; only pereonite 7 shorter than pereonite 6; maxilla with aostegite pereonite 7 each abruptly shorter than pereonite 4; maxilla with fleshy and thick folds; maxilliped with oostegite pereonite 7 each abruptly shorter than pereonite 4; and maxilliped palp article 3 with 4 robust setae (Table 1).

Type locality: “la mer de Batavia.” (Bleeker 1957); i.e., Jakarta Bay, western Java Sea, Indonesia.

Remarks: *Lobothorax typus* may be identified by the following combinations of characters: anterolateral margins of pereonite 1 projecting forward beyond the anterior margin of the cephalon; pereonites 1–7 each with a dorsal median longitudinal ridge; dorsal surface smooth; pereonites 5–7 each abruptly shorter than pereonite 4; and maxilliped palp article 3 with 4 robust setae (Table 1).

*Lobothorax aurita* was described from Philippines by Schioedte and Meinert (1883), their description and figures (Schioedte and Meinert 1883; plate 11, figs. 1–4) agreeing well with those of Bleeker’s (1857) original description of *L. typus* from Batavia (Jakarta). Specifically, the key characters, such as antero-lateral margins of pereonite 1 projecting forward beyond the anterior margin of the cephalon, pereonites 1–7 each with dorsal median longitudinal ridges, and pereonites 5–7 each abruptly shorter than pereonite 4. Hence *Lobothorax aurita* is here placed into junior synonymy with *L. typus*.

*L. typus* is comparatively well-known species within the genus, recorded from Batavia (Jakarta) and the Philippines (Bleeker 1857; Schioedte and Meinert 1883). The species was redescribed by Yu and Bruce (2006) based on the materials collected from the South China Sea and was later recorded from Parangipettai, India and East Malaysia (Rameshkumar et al. 2013; Anandkumar et al. 2015).

Distribution: Jakarta, Java, Indonesia (Bleeker 1857; Schioedte and Meinert 1883), Ubay, Philippines (Schioedte and Meinert 1883; Trilles 2008), South China Sea (Yu and Bruce 2006), Parangipettai, India (Rameshkumar et al. 2013), East Malaysia (Anandkumar et al. 2015).
Hosts: Lepturacanthus savala (Cuvier, 1829), Trichiurus lepturus Linnaeus, 1758 (Yu and Bruce 2006; Rameshkumar et al. 2013; Anandkumar et al. 2015).

Lobothorax laevis Richardson, 1910

Lobothorax laevis Richardson, 1910: 19, fig. 18; Barnard 1936: 168, fig. 8.

Type locality: Leyte Island, Villaba, 16.1 miles NE of Capitancillo Island Light, The Philippines.

Remarks: Lobothorax laevis has not been reported since the original description and subsequent records from the Mergui Archipelago, Bay of Bengal by Barnard (1936). The identification of this species is still based on its original description. Lobothorax laevis is identified by the following combinations of characters: cephalon subequal to pereonite 1 anterolateral expansion; pereonites 1–7 each without median longitudinal ridges; and smooth dorsal surfaces (Table 1). The holotype is held at the Department of Invertebrate Zoology, Smithsonian Institutions, USA; catalogue number USNM 40935.

Distribution: The Philippines (Richardson 1910); Bay of Bengal, Morrison Bay. Mergui Archipelago (Barnard 1936).

Host: Unknown.

Lobothorax nicosmiti Aneesh, Bruce and Kumar sp. nov.

(Figs. 1–6)

Material examined: Holotype. 1♀ (ovig., 18.0 mm long, 6.0 mm wide), from Promethichthys prometheus coll. Bincy MR and Sreenath TM (Reg. No. ZSI/WGRC/IR.INV./14609). Paratype. Same data as holotype with the following measurements and registration details: 1♀ (non-ovig., 24.0 mm long, 7.2 mm wide) (Reg. No. ZSI/WGRC/IR.INV./14610).

Etymology: This species is named in honour of Dr. Nico J. Smit, Professor and Director, Unit for Environmental Sciences and Management, Water Research Group (Ecology), North West University, South Africa, recognising his contribution to knowledge of parasitology and marine isopoda of southern Africa in his role as aquatic biologist, parasitologist, taxonomist and ecologist in South Africa.

Description: Description of holotype female (Figs. 1–6): Body weakly hunched, subquadract in outline, 3.0–3.3 times as long as greatest width, dorsal surfaces coarsely pitted, widest at pereonite 5, most narrow at pereonite 1; lateral margins subparallel. Cephalon 1.1 times longer than wide, frontal margin produced to form broadly rounded rostrum. Eyes round with distinct margins, one eye 0.4 times width of cephalon. Pereonite 1 anterolateral expansion not reached to the anterior margin of cephalon. Pereonites 1, 3 and 4 subequal, longest, pereonite 7 shortest; pereonite 5, 6 subequal, conspicuously shorter than 4. Pereonites posterolateral angles not produced. Coxae all shorter than pereonites. Pleon wide, 0.8 as wide as pereon; pleonites progressively increasing in width towards posterior, pleonites 1–4 sub-equal in length, 5 slightly longer than pleonite 1. Pleotelson 0.6 times as long as wide, posterior margin weakly emarginate, broadly sub-

Table 1. Inter-specific characters between the species of parasitic isopod Lobothorax

<table>
<thead>
<tr>
<th>Characters</th>
<th>L. typus Bleeker, 1857</th>
<th>L. laevis Richardson, 1910</th>
<th>L. nicosmiti Aneesh, Bruce and Kumar sp. nov.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pereonite 1 antero-lateral expansion</td>
<td>Projecting forward well beyond the anterior margin of cephalon</td>
<td>Subequal to cephalon length</td>
<td>Not reaching to the anterior margin of cephalon</td>
</tr>
<tr>
<td>Uropod rami</td>
<td>Endopod longer than exopod, apex acute</td>
<td>Endopod shorter than exopod, apex rounded or narrowly rounded</td>
<td>Endopod longer than exopod, apex narrowly rounded</td>
</tr>
<tr>
<td>Pereonites dorsal surface</td>
<td>Smooth</td>
<td>Smooth</td>
<td>Surfaces coarsely pitted</td>
</tr>
<tr>
<td>Pereonite dorsal median longitudinal ridges</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Cephalon</td>
<td>Anteriorly acute</td>
<td>subtruncate</td>
<td>Cephalon anteriorly truncate</td>
</tr>
<tr>
<td>Pleotelson</td>
<td>About 0.8 times as long as wide, sub-rectangular, posterior margin tapering to caudomedial point</td>
<td>About 0.58 times as long as wide, sub-rectangular, posterior margin tapering to caudomedial point</td>
<td>About 0.62 times as long as wide, posterior margin weakly emarginate, broadly sub-truncate, lateral margins convex</td>
</tr>
<tr>
<td>Host fish</td>
<td>Lepturacanthus savala (Cuvier) Trichiurus lepturus Linnaeus</td>
<td>Unknown</td>
<td>Promethichthys prometheus (Cuvier)</td>
</tr>
</tbody>
</table>

© 2021 Academia Sinica, Taiwan
truncate, lateral margins convex.

Antennula length slightly shorter than antenna, consisting of 8 articles; peduncle articles all articulated, 1–3 more robust than articles 4–8; articles gradually decreasing the width from 1–8; articles 2–3 subequal in length, article 1, 0.6 times as long as wide, article 2 about as long as wide, article 3, 1.5 times as long as wide, article 3–8, longer than wide, article 2–3 subequal in length; extending to middle of anterior lobe of pereonite 1. Antenna consisting of 9 articles; article 3–4 wider and longer than others. Mandibular molar process absent; palp article 3 with 2 simple setae. Maxillula simple with 4 terminal RS. Maxilla mesial lobe and lateral lobe each with 2 RS. Maxilliped palp consisting of 2 articles, without oostegite lobe; article 2 without setae or spine, article 3 with 3 recurved short RS.

Pereopod 1 basis 1.2 times as long as greatest width; ischium 0.8 times as long as basis; merus 0.4 times as long as wide; propodus 0.5 times as long as basis, 1.1 times as long as wide; dactylus moderately robust, 1.5 times as long as propodus, 2.7 times as long as proximal width. Pereopod 2 basis 1.35 times as long as greatest width, ischium 0.8 times as long as basis, 1.8 times as long as wide; propodus 1.4 times as long as wide; dactylus 1.4 times as long as propodus. Pereopod 4 basis 1.8 times as long as greatest width, ischium 0.5 times as long as basis, 1.8 times as long as wide; propodus 0.4 times as long as basis, 1.5 times as

![Fig. 1. Lobothorax nicosmiti Aneesh, Bruce and Kumar sp. nov. A, B, holotype, female (Reg. No. ZSI/WGRC/IR.INV./14609) (ovigerous) dorsal and lateral view. C, paratype, female (Reg. No. ZSI/WGRC/IR.INV./14610) (non-ovigerous) dorsal view.](image-url)
long as wide; dactylus 1.8 times as long as propodus. *Pereopod 6* basis 1.4 times as long as greatest width, ischium 0.7 times as long as basis; propodus 1.5 times as long as wide, 0.4 times as long as basis; dactylus 2.0 times as long as propodus. *Pereopod 7* basis 1.3 times as long as greatest width; ischium 0.7 times as long as basis; merus 0.5 as long as wide, 0.3 times as long as ischium; carpus 0.9 times as long as wide, 0.38 times as long as ischium; propodus 1.8 times as long as wide, 0.5 times as long as ischium; dactylus 1.6 times as long as propodus, 4.3 times as long as basal width.

Pleopods 1–3 rami simple, 4–5 endopods with

---

**Fig. 2.** *Lobothorax nicosmiti* Aneesh, Bruce and Kumar sp. nov., holotype female (Reg. No. ZSI/WGRC/IR.INV./14609) (ovigerous). A, dorsal view. B, ventral view.
Fig. 3. Lobothorax nicosmiti Aneesh, Bruce and Kumar sp. nov., non-ovigerous female paratype (Reg. No. ZSI/WGRC/IR.INV./14610). A, dorsal view. B, ventral view. C, lateral view.
Fig. 5. *Lobothorax nicosmiti* Aneesh, Bruce and Kumar sp. nov., ovigerous female (Reg. No. ZSI/WGRC/IR.INV./14609). A–G, pereopods 1–7 respectively.
weak fleshy ridges; endopods of all pleopods slightly shorter than exopod. Pleopods peduncles all with developed lateral lobes. Pleopod 1 exopod 1.1 times as long as wide, lateral margin moderately convex, distally broadly rounded, mesial margin weakly convex; endopod as long as exopod, 1.2 times as long as wide, lateral margin straight, distally broadly rounded, mesial margin slightly convex; peduncle 3.0 times as wide as long. Pleopod endopods 4 and 5 each with proximomedial lobe.

Uropod 1.22 as longer than pleotelson; peduncle 0.5 times as long as endopod; rami extending beyond pleotelson, apices broadly rounded. Endopod 2.75 times as long as greatest width, 1.35 times as long as exopod, lateral margin convex, mesial margin not sinuate. Exopod curved to mesial, 2.4 times as long as greatest width, 1.35 times as long as exopod, lateral margin moderately convex, mesial margin not sinuate.

Size: Length: ovigerous females (18 mm), non-ovigerous females (24 mm).

Colour: Female, live colour is light brownish yellow.

Host: Promethichthys prometheus (Cuvier, 1832) (Gempylidae).

Distribution: Known only from the type locality.

Remarks: Lobothorax nicosmiti sp. nov. can be identified by the following characters: pereonite 1 anterolateral expansion not extending to the anterior margin of cephalon; pereon dorsal surfaces coarsely pitted; pereonites without dorsal median longitudinal ridges; cephalon anteriorly truncate; pleotelson about 0.6 times as long as wide, posterior margin weakly emarginate, broadly sub-truncate, lateral margins convex; maxilliped palp article 3 with three RS; and pereopods basis 0.6–0.8 times wider than long with prominent carina. The description of L. nicosmiti sp. nov. from India is the third valid species of Lobothorax Bleeker, 1857.

Lobothorax nicosmiti sp. nov. is clearly distinct from L. typus in having: pereonites 1–7 with dorsal median longitudinal ridges in L. typus (vs dorsal ridges absent in L. nicosmiti sp. nov.); anterolateral margins of pereonite 1 projecting forward beyond the anterior margin of the cephalon in L. typus (vs not reached to the anterior margin of cephalon in L. nicosmiti sp. nov.); maxilliped palp article 3 with 4 robust setae in L. typus (vs 3 robust setae L. nicosmiti sp. nov.). Lobothorax nicosmiti sp. nov. is equally distinct when compared to L. laevis by: body dorsal surface smooth in L. laevis (vs. body dorsal surfaces coarsely pitted in L. nicosmiti sp. nov.); cephalon subequal to pereonite 1 anterolateral expansion in L. laevis (vs. pereonite 1 anterolateral expansion not reached to the anterior margin of cephalon in L. nicosmiti sp. nov.); pleotelson subrectangular, posterior margin tapering to caudomedial point in L. laevis (vs pleotelson posterior margin weakly emarginate, broadly sub-truncate, lateral margins convex in L. nicosmiti sp. nov.) (Table 1).

Key to the species of Lobothorax Bleeker, 1857

1. Body dorsal surface smooth; pleotelson sub-rectangular, posterior margin tapering to caudomedial point; cephalon subequal or not reaching to pereonite 1 anterolateral expansion .......................... 2
   - Body dorsal surfaces coarsely pitted; pleotelson posterior margin weakly emarginate, broadly sub-truncate, lateral margins convex; cephalon extending well beyond pereonite 1 anterolateral expansion .................................................. L. nicosmiti sp. nov.
2. Pereonites 1–7 with dorsal median longitudinal ridges; cephalon anteriorly triangular, forming narrowly rounded apex .................. L. typus Bleeker, 1857
   - Pereonites 1–7 without dorsal median longitudinal ridges; cephalon anteriorly subtruncate .......... L. laevis Richardson, 1910

CONCLUSIONS

New material of a species of Lobothorax Bleeker, 1857 was found to differ consistently from the two species hitherto known to belong to the genus, namely Lobothorax typus Bleeker, 1857, the type species, and Lobothorax laevis Richardson, 1910. We therefore conclude that the specimens are distinct and describe the new species Lobothorax nicosmiti Aneesh, Bruce and Kumar sp. nov. Comparison of the descriptions for Lobothorax aurita Schoedte and Meinert, 1883 and L. typus revealed no substantive differences, and L. aurita is synonymised with L. typus.

List of abbreviations

RS, robust seta/e.
TL, total body length.
W, maximal body width.
ZSI, Zoological Survey of India.

Acknowledgments: This work and the new species name were registered with ZooBank under urn: lsid:zoobank.org:pub:53B2D386-E921-4339-A7F9-BB8B03D2CAC2. PTA acknowledges the DS Kothari Post-Doctoral Fellowship of University Grants Commission, New Delhi (No.F.4-2/2006 (BSR)/BL/16-17/0401; dated: 28 August 2017) awarded to him. This is contribution number 472 from the North-West University–Water Research Group.

Authors’ contributions: PTA is the main worker on the topic, worked on illustrations and pictures and prepared the draft of the manuscript. PTA, NLB, and AB conceived and designed research, critically reviewed for improving the quality of the manuscript, BMR and STM.
conducted the field work. All authors read and approved the final manuscript.

Competing interests: The authors declare that they have no competing interests. No potential conflict of interest was reported by the authors.

Availability of data and materials: Type and voucher specimens were deposited in the collections of Western Ghat Field Research Centre of Zoological Survey of India, Kozhikode (ZSI/WGRC).

Consent for publication: All the authors consent to the publication of this manuscript.

Ethics approval consent to participate: The specimens (hosts and parasites) are not under the listed category of experimental animals which need ethics approval.

REFERENCES


Aneesh PT, Martin MB, Bruce NL, Nowak BF. 2013. Redescription of the parasitic genus Mothocya Fabricius, 1793 (Isopoda, Cymothoidae, Cymothoidea), from the southwestern Indian Ocean, including the description of two new species. Zookeys 35:1–42. doi:10.3897/zookeys.35.1–42.


© 2021 Academia Sinica, Taiwan


Pillai NK. 1964. Parasitic isopods of the family Cymothoidae from South Indian fishes. Parasitology 54:211–223. doi:10.1017/S003118200006786X.


