**Table S2**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Taxon | N | State/Country | BOLD code | Voucher | Genbank COI | GenBank 16S | Genbank 28S | Reference |
| *Laeonereis culveri* | 3 | Maryland, USA |  |  | MH235843KU905768KU905864 |  |  | Aguilar et. al., 2015. |
| *Laeonereis culveri* | 2 | Connecticut, USA | LCCS083-20LCCS085-20 | \* | MT887785 | MT887891MT887919 |  | Present Study |
| *Laeonereis* sp | 3 | Amapá, BR | LCCS073-20LCCS074-20LCCS075-20 | \* | MT887732MT887742MT887736 | MT887881 |  | Present Study |
| 8 | Piauí, BR | LCCS037-19LCCS038-19LCCS039-19LCCS040-19LCCS041-19LCCS042-19LCCS043-19LCCS044-19 | ZUEC-Poly 21448 | MT887733MT887741MT887743MT887764MT887752MT887742MT887754MT887775 |  | MT887809MT887815MT887827MT887820MT887836MT887833 | Present Study |
| 1 | Pará, BR | LCCS079-20 | \* | MT887799 |  |  | Present Study |
| 7 | Ceará, BR | LCCS045-19LCCS046-19LCCS047-19LCCS048-19LCCS049-19LCCS050-19LCCS051-19 | ZUEC-Poly 21449 | MT887766MT887734MT887770MT887740MT887776MT997750MT887787 |  | MT887829MT887810MT887814MT887834MT887819MT887838 | Present Study |
| 3 | Bahia, BR | LCCS076-20LCCS077-20LCCS078-20 | MNRJP001721 | MT887786MT887745MT887773 |  |  | Present Study |
| 6 | Rio de Janeiro, BR | LCCS080-20LCCS081-20LCCS084-20LCCS086-20LCCS087-20LCCS088-20 | MNRJP001844-001850 | MT887780MT887793MT887801 | MT887911MT887915MT887918 |  | Present Study |
| 27 | Rio de Janeiro, BR |  | MNRJP001844-001850 |

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| MH264895 |
| MH264913 |
| MH264918 |
| MH264931 |
| MH264933 |
| MH264936 |
| MH264944 |
| MH264949 |
| MH264953 |
| MH264955 |
| MH264977 |
| MH264979 |
| MH264985 |
| MH264996 |
| MH265006 |
| MH265007 |
| MH265009 |
| MH265013 |
| MH265014 |
| MH265015 |
| MH265033 |
| MH265034 |
| MH265036 |
| MH265037 |
| MH265043 |
| MH265046 |
| MH265049 |

 |  |  | Seixas et al., 2018. |
| 6 | São Paulo, BR | LCCS001-19LCCS002-19LCCS003-19LCCS005-19LCCS006-19LCCS095-20 | ZUEC-Poly 21444 | MT606429MT606437MT606426MT606435MT606430MT606434 | MT887887MT887923MT887882MT887904MT887888 | MT887816MT887841MT887811MT887828 | Sampieri et al. 2020 |
| 23 | São Paulo, BR | LCCS052-19LCCS004-19LCCS007-19LCCS008-19LCCS009-19LCCS010-19LCCS011-19LCCS012-19LCCS013-19LCCS014-19LCCS015-19LCCS016-19LCCS017-19LCCS018-19LCCS019-19LCCS020-19LCCS021-19LCCS022-19LCCS023-19LCCS024-19LCCS025-19LCCS026-19LCCS027-19 | ZUEC-Poly 21444ZUEC-Poly 21445ZUEC-Poly 21446ZUEC-Poly 21450 | MT887790MT887779MT887728MT887758MT887777MT887737MT887769MT887755MT887751MT887735MT887803MT887730MT887805MT887784MT887798MT887762MT887794MT887731MT887771MT887788MT887796MT887768MT887782 | MT887913MT887877MT887898MT887812MT887884MT887908MT887895MT887893MT887883MT887931MT887879MT887933MT887917MT887928MT887902MT887925MT887880MT887909MT887920MT887927MT887907MT887914 | MT887835MT887823MT887812MT887848MT887808MT887850MT887846MT887826MT887842MT887831MT887839MT887844MT887830MT887837 | Present Study |
| 10 | Paraná, BR | LCCS028-19LCCS029-19LCCS030-19LCCS031-19LCCS032-19LCCS033-19LCCS034-19LCCS035-19LCCS036-19 | ZUEC-Poly 21447 | MT887783MT887753MT887749MT887767MT887759MT887756MT887789MT887802MT887746 | MT887916MT887894MT887906MT887899MT887896MT887921MT887930MT887889 | MT887821 | Present Study |
| 1 | Santa Catarina, BR | LCCS082-20 |  | MT887739 |  |  | Present Study |
| 4 | Rio Grande do Sul, BR | LCCS053-19LCCS054-19LCCS055-19LCCS056-19 | ZUEC-Poly 21451 | MT887797MT887747MT887792MT887763 | MT887890MT887924MT887903 | MT887845MT887817 | Present Study |
| 6 | Montevideo, UR | LCCS057-19LCCS058-19LCCS059-19LCCS060-19LCCS061-19LCCS062-19 | ZUEC-Poly 21452 | MT887778MT887729MT887791MT887738MT887806MT887772 | MT887878MT887922MT887885MT887934MT887910 | MT887878MT887840MT887813MT887851 | Present Study |
| 8 | Mar del Plata, AR | LCCS063-19LCCS064-19LCCS065-19LCCS066-19LCCS068-19LCCS069-19LCCS070-19LCCS071-19 | ZUEC-Poly 21453 | MT887757MT887748MT887761MT887765MT887795MT887760MT887804MT887774 | MT887897MT887892MT887901MT887905MT887926MT887900MT887932 | MT887822MT887818MT887825MT887843MT887824MT887849MT887832 | Present Study |
| *Ceratocephale cf. loveni* | 1 | Nova Scotia, CAN |  |  |  | MH379973.1 |  | Neal et al., 2018. |
| *Micronereis nanaimoensis* | 1 | British Columbia, CAN |  |  | MF121172.1 |  |  | Dewaard, JR. 2017. |
| *Allita succinea* | 2 | Maryland, USA |  |  | KU906063.1KU906071.1 | KT959483.1KT959523.1 | AY210464.1 | Aguilar et al., 2006. |
| *Allita succinea* | 1 | Mar del Plata, AR | LCCS072-19 | ZUEC-Poly 21454 | MT887744 | MT887886 |  | Present Study |

**References for table S2**

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