**Supp. file 1.** Additional information.<https://doi.org/10.5852/ejt.2024.943.2585.11773>



**Fig. S1.** Maximum likelihood tree for Dorididae Rafinesque, 1815 based on the concatenated alignment of COI, 16S, and H3 markers (1449 bp). Bootstrap support values are shown on branches. The outgroup used to root the tree was *Aphelodoris* Bergh, 1879. Scale bar indicates substitutions per site.



**Fig. S2:** Maximum likelihood tree for Dorididae Rafinesque, 1815 based on the COI marker (659 bp). Bootstrap support values are shown on branches. The outgroup used to root the tree was *Aphelodoris* Bergh, 1879. Scale bar indicates substations per site.



**Fig. S3:** Maximum likelihood tree for Dorididae Rafinesque, 1815 based on the 16S marker (462 bp). Bootstrap support values are shown on branches. The outgroup used to root the tree was *Aphelodoris* Bergh, 1879. Scale bar indicates substations per site.



**Fig. S4:** Maximum likelihood tree for Dorididae Rafinesque, 1815 based on the H3 marker (328 bp). Bootstrap support values are shown on branches. The outgroup used to root the tree was *Doris verrucosa* Linnaeus, 1758. Scale bar indicates substations per site.

**Table S1:** Material used in molecular phylogenetic analyses and species delimitation tests, with GenBank accession numbers and relevant references.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Voucher number** | **Locality** | **COI** | **16S** | **H3** | **Reference** |
| *Doris ocelligera* | X396 | Coves Cala Maset, Sant Feliu de Guíxols, Girona, Spain | OR286433 | OR286512 | OR340967 | This study |
| *Doris ocelligera* | X447 | Coves Cala Maset, Sant Feliu de Guíxols, Girona, Spain | OR286434 |  OR286513 |  OR340968 | This study |
| *Doris ocelligera* | MCZ395160 | Punta del Romaní, l'Escala, Girona, Spain | OR286432 | – | – | This study |
| *Doris berghi* | G04 | Playa viveiro, Galicia, Spain |  OR286435 | OR286514 | OR340969 | This study |
| *Doris berghi* | GC40 | Piscinas de Agaete, Gran Canaria, Spain | OR286436 | OR286515 | OR340970 | This study |
| *Doris berghi* | ZSM20210024 | Coves Cala Maset, Sant Feliu de Guíxols, Girona, Spain | OR286438 | OR286516 | OR340971 | This study |
| *Doris berghi* | MCZ395161 | Aigua Freda, Begur, Girona, Spain | OR286437 | – | – | This study |
| *Doris marmorata* | B2 | Blanes, Girona, Spain | OR286430 | OR286510 | – | This study |
| *Doris marmorata* | ZSMMol20210023 | Coves Cala Maset, Sant Feliu de Guíxols, Girona, Spain |  OR286431 | OR286511 | OR340966 | This study |
| *Doris bertheloti* | ZSMMol20210045 | Caleta Caballo, Lanzarote, Spain | OR286429 | OR286509 | OR340965 | This study |
| *Doris bertheloti* | B7 | La Herradura, Granada, Spain | OR286428 | – | – | This study |
| *Doris verrucosa* | ZSM20210044 | Étang de Thau, Sète, France | OR286439 | OR286517 | OR340972 | This study |
| *Doris verrucosa* |  | – | ON716048 | – | – | Mugnai & Costantini (unpubl.) |
| *Doris verrucosa* | DVCM1 | Capo Miseno, Naples, Italy | – | HE861892 | – | De Masi *et al*. 2015 |
| *Austrodoris kerguelenensis* | – | Burdwood Bank, Antarctica | EU823127 | EU823219 | – | Wilson *et al*. 2009 |
| *Austrodoris kerguelenensis* | ZSM200210482 | Elephant Is., Antarctica | EU823136 | EU823228 | – | Wilson *et al*. 2009 |
| *Austrodoris kerguelenensis* | ­ | Bransfield Strait, Antarctica | EU823146 | EU823238 | – | Wilson *et al*. 2009 |
| *Austrodoris kerguelenensis* | – | McMurdo Sound, Ross Sea, Antarctica | GU227115 | GU227000 | – | Heimeier *et al*. 2010 |
| *Doris odhneri* | CASIZ188014 | USA: Duxbury Reef, Marin Co., California | – | MF958295 | – | Hallas *et al*. 2017 |
| *Doris odhneri* | – | Munamjin-ri Gangwon-do, South Korea | OL800585 | OL800585 | – | Do *et al*. 2022 |
| *Conualevia alba* | – | California, La Jolla, Bird Rock, USA | KC153021 | KC153023 | – | Wilson, Maschek & Baker (unpubl.) |
| *Doris montereyensis* | BICSIOM12334 | USA: California, La Jolla, La Jolla Canyon | KC153022 | KC153024 | – | GenBank |
| *Doris montereyensis* | CASIZ174493 | USA: Battery Point, Cresceent City, Del Norte Co., California | MF958425 | MF958294 | – | Hallas *et al*. 2017 |
| *Archidoris pseudoargus* | – | Helgoland, North Sea | – | AF249224 | – | Wollscheid-Lengeling *et al.* 2001 |
| *Archidoris pseudoargus* |  | Plymouth, Devonshire, UK | AJ223256 | AJ225180 | – | Thollesson 2000 |
| *Archidoris wellingtonensis* | – | Ross Sea, Antarctica | GQ292034 | – | – | Shields, Marko, Woods & Moran (unpubl.) |
| *Archidoris pseudoargus* | – | Plymouth, Devonshire, UK | AJ223256 | AJ225180 | – | Thollesson 2000 |
| *Doriopsis pecten* | – | Australia: Queensland, Mooloolaba | KJ001311 | KJ018914 | – | Cheney *et al*. 2014 |
| *Homoiodoris japonica* | – | China | KP635442 | KP635442 | – | Liu *et al*. 2015 |
| *Homoiodoris japonica* |  | China | NC\_034006 | NC\_034006 | – | Liu & Shen (unpubl.) |
| *Doris* sp. | CASIZ192348 | Saudi Arabia: Red Sea | – | MF958306 | – | Hallas *et al*. 2017 |
| *Aphelodoris luctuosa* |  | Auckland, New Zealand | GQ292042 | – | – | Hallas *et al*. 2017 |
| *Aphelodoris* sp. | CCS-2010 | Ross Sea, Antarctica | GQ292033 | – | – | Shields, Marko, Woods & Moran (unpubl.) |
| *Aphelodoris* sp. | CASIZ176920 | Oudekraal, Cape Prov., South Africa | MF958424 | MF958293 | – | Hallas *et al*. 2017 |
| Dorididaesp. | 1467385 | Papua New Guinea | MZ560065 | – | – | Plaisance, Matterson, Drovetski, Fabricius, Meyer & Knowlton (unpubl.) |
| *Doriopsis granulosa* | – | Indo-Pacific region | AF249798 | AF249223 | – | Wollscheid-Lengeling *et al.* 2001 |
| *Doriopsis granulosa* | D. granulosa | Mauritius | MW815564 | – | – | Ah-Shee-Tee *et al*. 2022 |
| *Doris adrianae* | DOR01 | Vigo | MW518047 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris adrianae* | DOR02 | Vigo | MW518048 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris adrianae* | DOR03 | Vigo | MW518049 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris adrianae* | DOR04 | Vigo | MW518050 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris adrianae* | DOR05 | Vigo | MW518051 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris adrianae* | USCX10324 | Ría de Ferrol, Galicia, Spain | MW602531 | – | – | Urgorri *et al*. 2021 |
| *Doris nobilis* | Gastr 8481V | – | MG935354 | – | – | Lundin (unpubl.) |
| *Doris ocelligera* | DORA2 | Vigo | MW522603 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris ocelligera* | DORA4 | Vigo | MW522602 | – | – | Almón, Pérez & Pérez (unpubl.) |
| *Doris* sp. | CCS-2010 | Ross Sea, Antarctica | GQ292046 | – | – | Shields, Marko, Woods & Moran (unpubl.) |

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