**Supplementary table**

**Table 1.** Polynoid species in which bioluminescence has been reported, the wavelength of the emitted light and the respective reference.

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| --- | --- | --- | --- |
| **Species (valid name)** | **Older name** | **Wavelength** | **Key References** |
| [*Acholoe squamosa*(Delle Chiaje, 1827)](http://www.marinespecies.org/aphia.php?p=taxdetails&id=146474) | *Acholoe astericola* | 520 nm | Herrera, 1983 |
| *Eunoe nodosa*(M. Sars, 1861) |  |  | Nicol, 1953 |
| *Gattyana cirrhosa* (Pallas, 1766) | *Gattyana cirrosa* | 515 nm | Nicol, 1953; 1957 |
| *Harmothoe aculeata* |  |  | Andrews, 1891 |
| *Harmothoe areolata* (Grube, 1860)  |  |  | Plyuscheva and Martin, 2009 |
| *Harmothoe aspera* (Hansen, 1878)  |  |  | Nicol, 1953 |
| *Harmothoe extenuata* (Grube, 1840)  | *Lagisca extenuata* | 515 nm | Nicol, 1953; 1957 |
| *Harmothoe imbricata* (Linnaeus, 1767)  |  |  | Nicol, 1953; Plyuscheva and Martin, 2009 |
| *Harmothoe impar* (Johnston, 1839) |  |  | Nicol, 1953 |
| *Harmothoe longisetis* (Grube, 1863) |  | 515 nm | Nicol, 1953; 1957 |
| *Harmothoe spinifera* (Ehlers, 1864)  |  |  | Nicol, 1953 |
| *Lepidasthenia stylolepis*Willey in Lloyd, 1907 |  |  | Nicol, 1953 |
| *Malmgrenia castanea*McIntosh, 1876 |  |  | Nicol, 1953 |
| *Malmgrenia lunulata*(Delle Chiaje, 1830) | *Harmothoe lunulata* | 510 nm | Herrera, 1983 |
| *Neopolynoe chondrocladiae* (Fauvel, 1943) |  | 520 nm | Taboada et al. 2020 |
| *Polynoe scolopendrina* Savigny, 1822  |  | 515 nm | Nicol, 1953; 1957 |
| *Subadyte pellucida* (Ehlers, 1875) | *Pholoe brevicornis* |  | Panceri, 1875 |