



# Correction to: A review on the biodiversity, distribution and trophic role of cephalopods in the Arctic and Antarctic marine ecosystems under a changing ocean

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Published online: 3 June 2019  
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**Correction to: Marine Biology (2018) 165:93**  
<https://doi.org/10.1007/s00227-018-3352-9>

The original version of this article unfortunately contained a mistake. The citation of the reference Gleadall (2013) which is found in Table 1 has not been linked and this was missing in the reference list.

The corrected Table 1 and missing reference is given below.

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The original article can be found online at <https://doi.org/10.1007/s00227-018-3352-9>.

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**Table 1** Arctic (including Pacific Subarctic) distribution of cephalopods

Species	Bathymetry	Geographic range (inside the studied area)	References
<i>Opisthoteuthis borealis</i> (Opisthoteuthidae) <sup>a</sup>	Mb	East and west coasts of Greenland	Collins (2002, 2005)
<i>Opisthoteuthis albatrossi</i> (Opisthoteuthidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Sasaki (1929), Kondakov (1941), Akimushkin (1965), Jereb et al. (2014)
<i>Opisthoteuthis californiana</i> (Opisthoteuthidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Sasaki (1929), Kondakov (1941), Akimushkin (1965), Jorgensen (2009), Jereb et al. (2014)
<i>Cirrotheuthis muelleri</i> (Cirrotheuthidae) <sup>a</sup>	Mb	Central Polar Basin, deep-water areas of the Norwegian, Greenland, Baffin seas and adjacent north Atlantic waters	Grieg (1933a), Nesis (1987a, b), Allcock et al. (2003b), Bjørnke and Gjøsaeter (2004), Jereb et al. (2014)
<i>Staurotheuthis syrtensis</i> (Staurotheuthidae) <sup>a</sup>	Mb	Deep-water north Atlantic up to east and west coasts of Greenland	Nesis (1987a), Frandsen and Zumholz (2004)
<i>Eledone cirrhosa</i> (Eledonidae) <sup>a</sup>	Sh	Norwegian shelf up to 70°N, Iceland	Nordgaard (1923), Nielsen (1930), Grieg (1933b), Grimpe (1933), Adam (1939), Bruun (1945), Muus (1959), Jereb et al. (2015)
<i>Granelledone verrucosa</i> (Megaleledonidae) <sup>a</sup>	SI	North Atlantic up to 65°N	Bruun (1945), Mercer (1969), Allcock et al. (2003a), Jereb et al. (2014)
<i>Granelledone boreopacifica</i> (Megaleledonidae) <sup>b</sup>	SI	Slope and deep-sea part of the Bering Sea	Jorgensen (2009), Jereb et al. (2014)
<i>Bathypolypus arcticus</i> (Bathypolypodidae) <sup>a</sup>	Sh, SI	Almost circumpolar at the Arctic shelf and slope, down to southern Greenland and areas to the south of Davis Strait	Nesis (1987b), Muus (2002), Jereb et al. (2014)
<i>Bathypolypus bairdii</i> (Bathypolypodidae) <sup>a</sup>	Sh, SI	North Atlantic up to Disko Bay (western Greenland), Iceland and south-western part of the Barents Sea	Muus (2002), Gardiner and Dick (2010b), Jereb et al. (2014)
<i>Bathypolypus pugniger</i> (Bathypolypodidae) <sup>a</sup>	Sh, SI	The Davis Strait, Iceland, Faroes; seems to inhabit "border" areas of ranges of <i>B. arcticus</i> and <i>B. bairdii</i>	Muus (2002), Frandsen and Zumholz (2004), Gardiner and Dick (2010b), Jereb et al. (2014)
<i>Muusoctopus sibiricus</i> (Enterocotopodidae) <sup>a</sup>	Sh	Laptev, East-Siberian, Chukchi and Beaufort Seas	Løyming (1930), Kondakov et al. (1981), Nesis (2001)
<i>Muusoctopus</i> sp. (Enterocotopodidae) <sup>da</sup>	SI	Around the Spitsbergen Archipelago from deep-water sides, slope of the northern Barents and Kara Seas, St. Anna's Trough	Nesis (2001), Allcock et al. (2006), Golikov et al. (unpubl. data)
<i>Muusoctopus leioderma</i> (Enterocotopodidae) <sup>c</sup>	Sh, SI	The Bering Sea, southern part of the Chukchi Sea	Nesis (1987a, b), Jorgensen (2009), Jereb et al. (2014)
<i>Muusoctopus hokkaidensis</i> (Enterocotopodidae) <sup>b</sup>	Sh, SI	Slope and deep-sea part of the Bering Sea	Nesis (1987a, b), Jorgensen (2009), Jereb et al. (2014)
<i>Muusoctopus profundorum</i> (Enterocotopodidae) <sup>b</sup>	Sh, SI	Slope and deep-sea part of the Bering Sea	Jorgensen (2009), Jereb et al. (2014)
<i>Muusoctopus oregonensis</i> (Enterocotopodidae) <sup>b</sup>	Sh, SI	Slope and deep-sea part of the Bering Sea	Nesis (1987a), Jorgensen (2009), Jereb et al. (2014)
<i>Sasakiopus salebrosus</i> (Enterocotopodidae) <sup>b</sup>	Sh, SI	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Nesis (1987a), Jorgensen (2009), Jorgensen et al. (2010)
<i>Enterocotopus dofleini</i> (Enterocotopodidae) <sup>b</sup>	Sh, SI	Slope and deep-sea part of the Bering Sea	Hartwick (1983), Jorgensen (2009)
<i>Japetella diaphana</i> (Amphitretidae) <sup>b</sup>	M	Slope and deep-sea part of the Bering Sea	Jorgensen (2009), Jereb et al. (2014)
<i>Haliphron atlanticus</i> (Alloposidae) <sup>a</sup>	Mb	North Atlantic, but there are two records from the Norwegian coast at 66.3°N–68.3°N	Willassen (1986), Bjørnke and Gjøsaeter (2004)
<i>Onychoteuthis borealijaponica</i> (Onychoteuthidae) <sup>b</sup>	Em	Slope and deep-sea part of the Bering Sea	Nesis (1987a), Kubodera et al. (1998), Jereb and Roper (2010)
<i>Onykia robusta</i> (Onychoteuthidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Nesis (1987a), Kubodera et al. (1998), Jereb and Roper (2010)

**Table 1** (continued)

Species	Bathymetry	Geographic range (inside the studied area)	References
<i>Gonatus fabricii</i> (Gonatidae) <sup>a</sup>	Mb	Central Polar basin, the Norwegian, Greenland, Baffin Seas and adjacent north Atlantic waters, the Barents Sea and St. Anna's Trough in the Kara Sea	Grieg (1933a, b), Young (1973), Kristensen (1983), Nesis (1987a, b), Bjørke and Gjøsæter (2004), Jereb and Roper (2010), Golikov et al. (2012, 2013b)
<i>Gonatus steenstrupi</i> (Gonatidae) <sup>a</sup>	M	North Atlantic up to 63°N	Kristensen (1981), Nesis (1987a, b), Jereb and Roper (2010)
<i>Gonatus berryi</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Kubodera and Jefferts (1984a, b), Nesis (1997), Jereb and Roper (2010)
<i>Gonatus kamtschaticus</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Kubodera and Jefferts (1984a, b), Nesis (1997), Jorgensen (2007, 2009), Jereb and Roper (2010)
<i>Gonatus madokai</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Kubodera and Jefferts (1984a, b), Nesis (1997), Jorgensen (2007, 2009), Jereb and Roper (2010)
<i>Gonatus onyx</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Kubodera and Jefferts (1984a, b), Nesis (1997), Jorgensen (2007, 2009), Jereb and Roper (2010)
<i>Gonatus pyros</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Okutani et al. (1988), Nesis (1997), Jereb and Roper (2010)
<i>Gonatus ursabrunae</i> (Gonatidae) <sup>b</sup>	M	Slope and deep-sea part of the Bering Sea	Kubodera and Jefferts (1984a, b), Okutani et al. (1988), Jereb and Roper (2010)
<i>Gonatopsis borealis</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Kubodera and Jefferts (1984a, b), Okutani et al. (1988), Nesis (1997), Jorgensen (2007, 2009); Jereb and Roper (2010)
<i>Gonatopsis japonicus</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Okutani et al. (1988), Nesis (1997), Jereb and Roper (2010)
<i>Gonatopsis makko</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Okutani et al. (1988), Nesis (1997), Jereb and Roper (2010)
<i>Gonatopsis octopedatus</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Kubodera and Jefferts (1984b), Okutani et al. (1988), Nesis (1997), Jereb and Roper (2010)
<i>Gonatopsis okutanii</i> (Gonatidae) <sup>a</sup>	Mb	Slope and deep-sea part of the Bering Sea	Jereb and Roper (2010)
<i>Eogonatus tinro</i> (Gonatidae) <sup>a</sup>	Mb	Slope and deep-sea part of the Bering Sea	Okutani et al. (1988), Nesis (1997), Jereb and Roper (2010)
<i>Berryteuthis magister</i> (Gonatidae) <sup>c</sup>	M	Slope and deep-sea part of the Bering Sea; few rare records from the shelf part of the Bering Sea	Akimushkin (1965), Nesis (1987b, 1997), Okutani et al. (1988), Jorgensen (2007, 2009), Jereb and Roper (2010)
<i>Berryteuthis anonychus</i> (Gonatidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Nesis (1997), Jorgensen (2007, 2009), Jereb and Roper (2010)
<i>Histioteuthis bonnellii</i> (Histioteuthidae) <sup>a</sup>	Mb	North Atlantic, but there is a record from the Davis Strait (63.5°N)	Kristensen (1980)
<i>Syngmatoteuthis dofleini</i> (Histioteuthidae) <sup>b</sup>	M	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Nesis (1994), Voss et al. (1998), Jereb and Roper (2010), Young and Vecchione (2015)
<i>Brachioteuthis risei</i> (Brachioteuthidae) <sup>a</sup>	M	North Atlantic up to Davis Strait in the western part and to the Iceland and the south Norwegian Sea (63.5°N) in the eastern part	Nielsen (1930), Grieg (1933b), Grimpe (1933), Mercer (1969), Nesis (1987b), Frandsen and Zumholz (2004)
<i>Architeuthis dux</i> (Architeuthidae) <sup>a</sup>	Mb	Normally doesn't live to the north from the Northern Sea; single stranding specimens rarely reach norwegian shelf up to 70°N	Nordgaard (1923), Grieg (1933b), Grimpe (1933), Bruun (1945), Muus (1959), Clarke (1966), Nesis (1987b), Bjørke and Gjøsæter (2004)
<i>Illex illecebrosus</i> (Ommastrephidae) <sup>a</sup>	Sh, SI	Normally doesn't live in the Arctic; some years foraging shoals reach southern Greenland, Baffin Island and Iceland (up to 66°N)	Grimpe (1933), Bruun (1945), Mercer (1969), Nesis (1987a)

Table 1 (continued)

Species	Bathymetry	Geographic range (inside the studied area)	References
<i>Todarodes sagittatus</i> (Ommastrephidae) <sup>a</sup>	Sh, SI	Normally does not live to the north from the Northern Sea; some years foraging shoals reach the Barents Sea, White and Kara Seas	Dejugin (1915), Nordgaard (1923), Nielsen (1930), Grieg (1933b), Grimpe (1933), Kondakov (1937), Adam (1939), Bruun (1945), Clarke (1966), Wiborg (1984), Nesis (1987b), Bjørke and Gjøsæter (2004), Golikov et al. (2013b), Sabirov et al. (2009, 2012)
<i>Todaropsis eblanae</i> (Ommastrephidae) <sup>a</sup>	M	Normally does not live to the north from the Northern Sea; due to the Arctic warming, reach the Southern Barents Sea	Akimushkin (1965), Sinclair (1991), Jereb and Roper (2010)
<i>Ommastrephes bartramii</i> (Ommastrephidae) <sup>b</sup>	E	Normally does not live in the Arctic (see comments in text according to reports of these findings); single stranding specimens rarely reach slope and deep-sea part of the Bering Sea	Akimushkin (1965), Nesis (1987a), Jørgensen (2009), Jereb and Roper (2010)
<i>Chiroteuthis calyx</i> (Chiroteuthidae) <sup>b</sup>	M	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Nesis (1987a), Jørgensen (2009), Jereb and Roper (2010)
<i>Mastigoteuthis agassizii</i> (Mastigoteuthidae) <sup>a</sup>	Mb	Normally does not live in the Arctic; two specimens found in the Denmark Strait in 2002 (about 65.0°N)	Golikov et al. (in prep.)
<i>Teuthowenia megalops</i> (Cranchiidae) <sup>a</sup>	Mb	Up to 70°N in the Baffin Sea, to 66°N in the Denmark Strait and to 63°N in the Norwegian Sea; recently found in the eastern Greenland Sea about 74°N	Nesis (1965), Bjørke and Gjøsæter (2004), Frandsen and Zumholz (2004), Zumholz and Frandsen (2006), Golikov et al. (2013b)
<i>Galiteuthis armata</i> (Cranchiidae) <sup>a</sup>	Mb	Normally does not live in the Arctic; single specimen found in the Denmark Strait (about 65.6°N), probably due to Arctic warming	Golikov et al. (in prep.)
<i>Galiteuthis phyllura</i> (Cranchiidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Jereb and Roper (2010)
<i>Taonius borealis</i> (Cranchiidae) <sup>b</sup>	Mb	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Jereb and Roper (2010)
<i>Rossia moelleri</i> (Sepioliidae) <sup>a</sup>	Sh	Almost circumpolar at the high Arctic shelf, rare lower than 75°N; as exceptions occur at Jan-Mayen and down to 63°N in the Baffin Sea	Kondakov (1937), Mercer (1968, 1969), Nesis (1987b), Frandsen and Zumholz (2004), Zumholz and Frandsen (2006)
<i>Rossia palpebrosa</i> (Sepioliidae) <sup>a</sup>	Sh, SI	Almost circumpolar at the Arctic shelf and slope, down to southern Greenland and areas to the south of Davis Strait in the western Atlantic and to the North Sea in the eastern Atlantic	Nordgaard (1923), Nielsen (1930), Grieg (1933a, b), Grimpe (1933), Kondakov (1937), Adam (1939), Bruun (1945), Akimushkin (1965), Mercer (1968, 1969), Nesis (1987b), Bjørke and Gjøsæter (2004), Frandsen and Zumholz (2004), Golikov et al. (2013a)
<i>Rossia macrosoma</i> (Sepioliidae) <sup>a</sup>	Sh, SI	Northern part of the North Sea, norwegian shelf up to 68°N, Iceland, eastern Greenland (Franz-Joseph Fjord)	Nordgaard (1923), Grieg (1933b), Grimpe (1933), Adam (1939), Bruun (1945), Muus (1959, 1962), Jonsson and Dagsson (1970), Nesis (1987b)
<i>Rossia megaptera</i> (Sepioliidae) <sup>a</sup>	Sh, SI	Western north Atlantic up to 70°N in the Baffin Sea. Research on distribution in the eastern Atlantic in progress	Verrill (1881), Mercer (1968, 1969), Nesis (1987b), Frandsen and Zumholz (2004), Golikov et al. (in prep.)
<i>Rossia pacifica</i> (Sepioliidae) <sup>b</sup>	Sh, SI	Slope and deep-sea part of the Bering Sea	Akimushkin (1965), Mercer (1968, 1969), Jereb and Roper (2005)

**Table 1** (continued)

Species	Bathymetry	Geographic range (inside the studied area)	References
<i>Neorossia caroli</i> (Sepioliidae) <sup>a</sup>	Sh, SI	Northern part of the North Sea, Iceland	Adam (1939), Bruun (1945), Nesis et al. (2001)
<i>Sepietta oweniana</i> (Sepioliidae) <sup>a</sup>	Sh, SI	Northern part of the North Sea, norwegian shelf up to 70°N; due to the Arctic warming reach the Tromsø Bank in the southern Barents Sea	Nielsen (1930), Grieg (1933b), Grimpe (1933), Bruun (1945), Bergstrøm and Summers (1983), Nesis (1987b), Golikov et al. (2014)
<i>Sepiolo atlantica</i> (Sepioliidae) <sup>a</sup>	Sh	Northern part of the North Sea, norwegian shelf up to 63°N, Iceland	Grimpe (1925, 1933), Nielsen (1930), Grieg (1933b), Adam (1939), Bruun (1945), Yau and Boyle (1996)
<i>Sepiolo pfefferi</i> (Sepioliidae) <sup>a</sup>	Sh	Northern part of the North Sea, norwegian shelf up to 63°N	Grimpe (1921, 1925, 1933), Bruun (1945)

*E* epipelagic, *Em* epi-mesopelagic, *M* mesopelagic, *Mb* meso-bathypelagic, *Sh* shelf, *SI* slope

<sup>a</sup>Cephalopod species distributed in the Arctic, constantly or occasionally

<sup>b</sup>Cephalopod species distributed in Pacific Subarctic

<sup>c</sup>Cephalopod species distributed in Pacific Subarctic, which inhabit or occasionally spread into the Arctic

<sup>d</sup>*Muusoctopus* species from mentioned areas could be new species, or *M. normani* or *M. johnsonianus*; *M.* sp. from the Chukchi Sea (MacGinitie 1955, 1959; Kondakov et al. 1981; Nesis 1987b) are identified as *M. sibiricus* by I. Gleadall. Also, in some papers *M. normani* is synonymized with *M. januarii* (e.g. Gleadall 2013)

## Reference

Gleadall IG (2013) A molecular sequence proxy for *Muusoctopus januarii* and calibration of recent divergence among a group of mesobenthic octopuses. *J Exp Mar Biol Ecol* 447:106–122. <https://doi.org/10.1016/j.jembe.2013.02.017>

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