

Supplementary Materials

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Supplementary Table S1. Specification of *Compsopogon caeruleus* stands in natural and seminatural water ecosystems of Europe with ecological data

Identified as	Country	Stand, (date) and geographic coordinates	Water type	Ecosystem name	Physicochemical and biological properties of water	Other data	References
<i>C. caeruleus</i>	Poland	Licheń, Wielkopolska (Jul 2017 and 2021); 52°18'56.9" N, 18°21'05.0" E	Freshwater	Licheńskie Lake	Temperature: 27.5–27.7°C Water depth: 50–51 cm SD: 0.5–0.51 m Chlorophyll <i>a</i> : 20–24 µg L ⁻¹ pH: 8.58–8.67 Cond.: 615–619 µS cm ⁻¹ TDS: 357.5–383.5 mg L ⁻¹ Color: 24–28 Pt-Co mg L ⁻¹ O ₂ : 5.62–6.84 mg L ⁻¹ O ₂ : 70–91% Turbidity: 18–23 NTU Alkalinity: 270–295 mg CaCO ₃ L ⁻¹ NO ₂ : 0.02–0.027 mg L ⁻¹ NO ₃ : 0.58–1.51 mg L ⁻¹ NH ₄ ⁺ : 0.14–0.22 mg L ⁻¹ PO ₄ ³⁻ : 0.016–0.4 mg L ⁻¹ SO ₄ ²⁻ : 74.1–79.4 mg L ⁻¹ Cl ⁻ : 13.2–22 mg L ⁻¹ Ca ²⁺ : 63–89.6 mg L ⁻¹ Mg ²⁺ : 23–30 mg L ⁻¹ Na ⁺ : 18–25.8 mg L ⁻¹ K ⁺ : 4.5–7.7 mg L ⁻¹ Total N: 0.5–2.2 mg L ⁻¹ Total P: 0.02–0.17 mg L ⁻¹ Total Fe: 0.047–0.076 mg L ⁻¹	Epiphyte on the leaves of <i>Vallisneria spiralis</i>	This study
<i>C. caeruleus</i>	Croatia	Banja, Neretva River Valley (Aug 2018); 43°03'01.8" N, 17°30'01.7" E; 43°02'52.7" N, 17°30'51.1" E; 43°03'02.8" N, 17°29'15.0" E	Freshwater	Desanka River	(range from 3 subsamples) Temperature: 23.8–24°C pH: 7.47–7.57 Cond.: 2,025–4,200 µS cm ⁻¹ Salinity: 0.83–1.38 PSU O ₂ : 85.8–89.5% O ₂ : 7.06–7.23 mg L ⁻¹ Turbidity: 1.14–1.32 NTU Alkalinity: 127.5–130 mg CaCO ₃ L ⁻¹	ND	Koletić et al. (2020b)

Supplementary Table S1. Continued

Identified as	Country	Stand, (date) and geographic coordinates	Water type	Ecosystem name	Physicochemical and biological properties of water	Other data	References
<i>C. caeruleus</i>	Croatia	Desne, Neretva River Valley (Aug 2018); 43°03'34.5" N, 17°31'10.1" E; 43°03'14.8" N, 17°31'03.7" E	Freshwater	Desne Lake	(range from 2 subsamples) Temperature: 20.3–23.3°C pH: 7.61–7.64 Cond.: 770–1,588 $\mu\text{S cm}^{-1}$ Salinity: 0.42–0.81 PSU O ₂ : 88.7–95.2% O ₂ : 7.76–7.95 mg L ⁻¹ Turbidity: 1.16–1.25 NTU Alkalinity: 142.5–145 mg CaCO ₃ L ⁻¹	ND	Koletić et al. (2020b)
<i>C. caeruleus</i>	Croatia	Rogotin, Neretva River Valley (Aug 2018); 43°02'29.90" N, 17°27'40.90" E	Freshwater / brackish	Orepak channel	Temperature: 28.5°C pH: 8.1 Cond.: 8,780 $\mu\text{S cm}^{-1}$ Salinity: 4.59 PSU O ₂ : 104.4% O ₂ : 8.09 mg L ⁻¹ Turbidity: 2.03 NTU Alkalinity: 130 mg CaCO ₃ L ⁻¹	Epiphyte on aquatic plants	Koletić et al. (2019, 2020a, 2020b)
<i>C. caeruleus</i>	Croatia	Šarić Struga/Rogotin Neretva River Valley (Aug 2018); 43°02'55.3" N, 17°28'38.0" E; 43°03'07.7" N, 17°27'45.7" E	Freshwater	Crna Rijenka River	(range from 2 stands) Temperature: 23.9–25°C pH: 7.71–7.76 Cond.: 6,600–9,580 $\mu\text{S cm}^{-1}$ Salinity: 2.15–3.61 PSU O ₂ : 99.7–102.2% O ₂ : 8.38–8.42 mg L ⁻¹ Turbidity: 1.19–1.52 NTU Alkalinity: 95–140 mg CaCO ₃ L ⁻¹	ND	Koletić et al. (2019, 2020a, 2020b)
<i>C. caeruleus</i>	Spain	Monte Pego, Alicante (Sep 2010); 38°52'24.67" N, 0°4'48.32" W	Freshwater	Sequia Mare del Marjal Major (channel)	Temperature: 20°C pH: 7.5 Cond.: 610 $\mu\text{S cm}^{-1}$ O ₂ : 6.25 mg L ⁻¹ NO ₂ : 0.02 mg L ⁻¹ NO ₃ : 10.54 mg L ⁻¹ PO ₄ ³⁻ : 0.03 mg L ⁻¹ Si ⁴⁺ : 6.57–7.60 mg L ⁻¹	ND	García-Fernández et al. (2015)
<i>C. caeruleus</i>	France	Rouen, Seine-Maritime (Sep 2012); 49°26'53.3" N, 1°03'17.8" E	Freshwater	Seine River	Temperature: 18°C SD: 0.5–0.8 m	Epiphyte on shoots of <i>Ceratophyllum demersum</i>	Breton (2014)
<i>C. caeruleus</i>	Spain	Hijar, Teruel (Jul 2011); 41°10'44.5" N, 0°27'08.9" W	Freshwater	Martin River	(range for 15 stands) Temperature: 17–28°C pH: 7.6–8.4 Cond.: 500–2,500 $\mu\text{S cm}^{-1}$ O ₂ : 5.2–12.5 mg L ⁻¹ NO ₃ : 1–18.3 mg L ⁻¹ NH ₄ ⁺ : 0.03–0.4 mg L ⁻¹ PO ₄ ³⁻ : 0.16–0.35 mg L ⁻¹	Epilith on the rocks together with <i>Cladophora</i> sp. or epiphyte on <i>Potamogeton pectinatus</i> and <i>Myriophyllum</i> sp.	Tomás et al. (2013)

Supplementary Table S1. Continued

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<i>C. caeruleus</i>	Spain	Lleida, Lleida, (Sep 2010); 41°36'39.62" N, 0°37'27.66" E	Freshwater	Segre River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Tartosa, Terragona (Aug 2007); 40°48'52.25" N, 0°31'12.41" E	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Haro, La Rioja (Oct 2011); 42°38'20.20" N, 2°52'2.68" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Presna Pina, Zaragoza (Aug 2008; Jul 2009; Sep 2010); 41°33'22.31" N, 0°40'46.99" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Xerta, Terragona (Sep 2010; Jul 2011); 40°55'16.27" N, 0°29'41.67" E	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Escatron, Zaragoza (Aug 2011); 41°17'44.68" N, 0°19'1.03" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Pina de Ebro, Zaragoza (Aug 2008; Jul 2009; Sep 2010; Aug 2011); 41°28'56.71" N, 0°32'13.27" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	San Vicente de la Sonsi- erra, La Roja (Sep 2011); 42°33'39.13" N, 2°45'43.11" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Zaragoza-Almozara (Jul 2009; Sep 2010; Aug 2011); 41°39'56.87" N, 0°53'40.94" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Alagón, Zaragoza (Aug 2011); 41°47'32.24" N, 1°08'5.18" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Bubierca, Zaragoza (Sep 2011); 41°18'45.42" N, 1°52'15.57" W	Freshwater	Jalón River		ND	Tomás et al. (2013)

Supplementary Table S1. Continued

Identified as	Country	Stand, (date) and geographic coordinates	Water type	Ecosystem name	Physicochemical and biological properties of water	Other data	References
<i>C. caeruleus</i>	Spain	El Burgo de Ebro, Zaragoza (Aug 2008; Aug 2011); 41°35'16.34" N, 0°44'42.02" W	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Flix, Terragona (Jul 2011); 41°14'7.70" N, 0°32'59.63" E	Freshwater	Ebro River		ND	Tomás et al. (2013)
<i>C. caeruleus</i>	Spain	Alhama de Aragón, Zaragoza (Sep 2011); 41°18'21.89" N, 1°52'27.93" W	Freshwater	Jalón River		ND	Tomás et al. (2013)
<i>C. aeruginosus</i> = <i>C. caeruleus</i>	Czech Republic	Dukovany (Sep 2012); ±49°05'34.3" N, 16°08'55.7" E	Freshwater	Skryjský Stream	Temperature: 17.2–32°C pH: 8.2 Cond.: 91.7–148 µS cm ⁻¹ O ₂ : 81.8% O ₂ : 7.86 mg L ⁻¹ Total N: 16.4 mg L ⁻¹ Total P: 0.345 mg L ⁻¹ SO ₄ ²⁻ : 124 mg L ⁻¹ Cl ⁻ : 735 mg L ⁻¹ BOD ₅ : 0.5 mg L ⁻¹ COD: 8 mg L ⁻¹	Epilithes on the stones, epiphyte on submerged macrophytes and filamentous macroalgae (<i>Cladophora</i> sp. and <i>Rhizoclonium</i> sp.) or epixylon on underwater wood (dead trees and shrubs)	Žáková et al. (2013)
<i>C. aeruginosus</i> = <i>C. caeruleus</i>	Austria	Zwingendorf, Gemeinde Großharras and Wulzeshofen, Gemeinde Laa an der Thaya (Jan, Jun–Oct 2007, 2011, and 2012); ±48°43'19.5" N, 16°17'00.0" E; ±48°43'09.8" N, 16°17'41.6" E; 48°43'09.5" N, 16°17'55.8" E; ±48°44'10.4" N, 16°20'55.9" E	Freshwater	Pulkau River	(range from 2 substands) Temperature: 3.6–32.2°C Flow: 0.3–1.5 m ³ s ⁻¹ pH: 7.0–8.4 Cond.: 90–1,030 µS cm ⁻¹ TDS: 1,810–3,990 mg L ⁻¹ O ₂ : 2.4–11.4 mg L ⁻¹ Total N: 6.5–28.6 mg L ⁻¹ Total P: 0.2–0.6 mg L ⁻¹ BOD ₅ : 0.9–7.2 mg L ⁻¹ COD: 35–172 mg L ⁻¹	Epilithes on different substrates: artificial (concrete walls), organic (shells), and natural hard (clay, pebbles, and stones), epiphyte on submerged macrophytes (<i>Ranunculus fluitans</i> , <i>Potamogeton crispus</i> , <i>Myriophyllum</i> sp., <i>Carex</i> sp.), mosses and filamentous green macroalgae (<i>Cladophora</i> sp. and <i>Rhizoclonium</i> sp.) or epixylon on underwater wood (dead trees and shrubs)	Žáková et al. (2013, 2015)

Supplementary Table S1. Continued

Identified as	Country	Stand, (date) and geographic coordinates	Water type	Ecosystem name	Physicochemical and biological properties of water	Other data	References
<i>C. aeruginosus</i> = <i>C. caeruleus</i>	Czech Republic	Znajmo (autumn 2010); ±48°44'18.7" N, 16°21'31.1" E	Freshwater	Dyje (Thaya) River	Temperature: 0.8–25°C Flow: 1.3–48.0 m ³ s ⁻¹ pH: 7.8–8.3 Cond.: 48.6–133 µS cm ⁻¹ TDS: 378–887 mg L ⁻¹ O ₂ : 6.7–13.1 mg L ⁻¹ Total N: 4.4–7.7 mg L ⁻¹ Total P: 0.06–0.2 mg L ⁻¹ BOD ₅ : 0.8–7.1 mg L ⁻¹ COD: 17–39 mg L ⁻¹	As above	Žáková et al. (2013, 2015)
<i>C. aeruginosus</i> = <i>C. caeruleus</i>	Czech Republic	Hevlin, Travní Dvůr, Jevisovka, Dronholec (May–Oct 2010); ±48°44'37.3" N, 16°22'51.8" E; ±48°47'32.8" N, 16°26'22.1" E; ±48°49'46.5" N, 16°28'29.6" E; ±48°51'15.2" N, 16°29'27.1" E	Freshwater	Dyje (Thaya) River	ND	As above	Žáková et al. (2013, 2015)
<i>C. caeruleus</i>	Germany	Grosskrotzenburg, Hesse (Jul 2007); 50°5'23.80" N, 8°56'38.71" E	Freshwater	Main River	Temperature: 24.3°C Cond.: 577–706 µS cm ⁻¹ O ₂ : 111–120% Cl ⁻ : 33–55 mg L ⁻¹	ND	Täuscher (2012)
<i>C. caeruleus</i>	Spain	Albufera de Alcudia, Mallorca (2010); 39°47'30.18" N, 3°6'17.97" E	Freshwater / brackish	No name channel	ND	ND	Sánchez Castillo et al. (2011)
<i>C. caeruleus</i>	Spain	Monte Pego, Alicante (1995 and 1999); 38°52'47.05" N, 0°4'59.15" W	Freshwater	Riu del Vedat River	ND	ND	Cantoral Uiza and Aboal Sanjurjo (2001), Edigos and Aboal (2003)
<i>C. caeruleus</i>	Spain	Monte Pego, Alicante (1995 and 1999); 38°51'24.90" N, 0°4'8.62" W	Freshwater	Barranc de Benituba (channel)	ND	ND	Cantoral Uiza and Aboal Sanjurjo (2001), Edigos and Aboal (2003)
<i>C. caeruleus</i>	Spain	Monte Pego, Alicante (spring 1995); 38°51'9.86" N, 0°3'31.19" W	Brackish / freshwater	Racons River	Temperature: 17–23.7°C pH: 7.6–8.2 Cond.: 1,900–4,200 µS cm ⁻¹ O ₂ : 4.7–12 mg L ⁻¹ NO ₃ ⁻ : 28.4–38.2 mg L ⁻¹ PO ₄ ³⁻ : 0.29–0.84 mg L ⁻¹ SO ₄ ²⁻ : 129–270.8 mg L ⁻¹ Cl ⁻ : 621–1,065 mg L ⁻¹ Ca ²⁺ : 68–132 mg L ⁻¹ Mg ²⁺ : 28.8–67 mg L ⁻¹	ND	Cantoral Uiza and Aboal Sanjurjo (2001), Edigos and Aboal (2003)

Supplementary Table S1. Continued

Identified as	Country	Stand, (date) and geographic coordinates	Water type	Ecosystem name	Physicochemical and biological properties of water	Other data	References
<i>C. caeruleus</i>	Spain	Los Trossos, Alicante (Aug–Oct 1991 and 1992); 38°44'47.01" N, 0°1'48.52" W	Brackish	Gorgos River	Temperature: 8.5–26.1°C pH: 7.23–8.37 Cond.: 1,712–2,870 $\mu\text{S cm}^{-1}$ O ₂ : 6–12.5 mg L ⁻¹ NO ₃ ⁻ : 4.7–23 mg L ⁻¹ NH ₄ ⁺ : 0.10 mg L ⁻¹ SO ₄ ²⁻ : 223.7–738.2 mg L ⁻¹ Cl ⁻ : 30.2–253.8 mg L ⁻¹	ND	Aboal et al. (1994)
<i>C. caeruleus</i>	Spain	Los Giles, Albacante (Aug 1983); 38°22'14.00" N, 2°26'14.32" W	Freshwater	Tus River	pH: 7.6–8.2 NO ₂ ⁻ : 0.06–2.32 mg L ⁻¹ NO ₃ ⁻ : 0.16–2.25 mg L ⁻¹ NH ₄ ⁺ : 0.03–3.16 mg L ⁻¹ PO ₄ ³⁻ : 0.05–8.66 mg L ⁻¹ Cl ⁻ : 244.4–25,380 mg L ⁻¹ Ca ²⁺ : 48–1,160 mg L ⁻¹ Mg ²⁺ : 34.84–1,530.9 mg L ⁻¹	ND	Aboal Sanjurjo (1989)
<i>C. caeruleus</i>	Spain	Formentera del Segura, Alicante (Aug 1983); 38°04'57.94" N, 0°44'41.55" W	Freshwater	Segura River		ND	Aboal Sanjurjo (1989)
<i>C. caeruleus</i>	Spain	Guardamar, Alicante (Aug 1983); ±38°06'31.92" N, 0°39'2.29" W	Brackish	Segura River I	pH: 7.6–8.2 Cond.: 250–1,110 $\mu\text{S cm}^{-1}$ Color: 24–150 mg L ⁻¹ NO ₃ ⁻ : 0.15–7.69 mg L ⁻¹ PO ₄ ³⁻ : 0–0.04 mg L ⁻¹	Epiphyte on the roots of <i>Phragmites australis</i> and <i>Arundo donax</i> or epilithic	Aboal Sanjurjo (1989), Sabater et al. (1989)
<i>C. caeruleus</i>	Spain	Alicante (Aug 1983); ±38°5'45.53" N, 0°40'37.48" W	Brackish	Segura River II		As above	Sabater et al. (1989)
<i>C. caeruleus</i>	Spain	Alicante (Aug 1983, 1985); ±38°10'46.79" N, 0°45'31.35" W	Freshwater	Laguna del Hondo and Azarbe del Riacho (pond)		Pleuston	Aboal Sanjurjo (1989), Sabater et al. (1989)
<i>C. caeruleus</i>	Spain	Murcia (Jul 1983); ±38°09'0.71" N, 1°16'15.02" W	Brackish	Rambla del Carrizalejo (river)		Epilithic	Aboal Sanjurjo (1989), Sabater et al. (1989)
<i>C. caeruleus</i>	Spain	Ulea, Murcia (1982, 1983); 38°10'50.41" N, 1°16'1.15" W	Brackish / saline	Barranco del Mulo / Estación de Ulea (river)	Cond.: 7,700–38,200 $\mu\text{S cm}^{-1}$ Salinity: 5–25% Color: 3,700–12,789 mg L ⁻¹	ND	Aboal (1986), Chapuis et al. (2014)

Supplementary Table S1. Continued

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<i>C. caeruleus</i>	Spain	Banyoles, Girona (Oct 1984; Feb 1985); ±42°7'28.29" N, 2°45'19.31" E	Freshwater	Banolas Lake and its channel	Temperature: 19°C pH: 6.8–7.7 Cond.: 1,037–1,827 µS cm ⁻¹	Epilithic on the channel walls and in the lake as epiphyte on the stems of submerged macrophytes	Busquets et al. (1985)
<i>C. caeruleus</i>	Spain	Monte Pego, Alicante (1979, 1995, and 1999); 38°51'16.09" N, 0°3'19.62" W	Brackish / saline	Bassa Sineu (channel)	Temperature: 17.5–25.1°C pH: 7.4–8.1 Cond.: 1,200–10,700 µS cm ⁻¹ O ₂ : 7.2–10 mg L ⁻¹ NO ₂ : 0.02–0.03 mg L ⁻¹ NO ₃ : 4.63–6.63 mg L ⁻¹ NH ₄ ⁺ : 0.8 mg L ⁻¹ PO ₄ ³⁻ : 0.02–0.5 mg L ⁻¹ SO ₄ ²⁻ : 43.2–734 mg L ⁻¹ Cl: 979–5,325 mg L ⁻¹ Ca ²⁺ : 34.1–420 mg L ⁻¹ Mg ²⁺ : 9.6–252 mg L ⁻¹	ND	Tomás (1981, 1988), Cantoral Uiza and Aboal Sanjurjo (2001), Edigos and Aboal (2003)
<i>C. caeruleus</i>	Spain	Santa Pola, Alicante (Feb 1980); ±38°20'24" N, 0°39'04" W	Freshwater	Azarbc de Dalt channel	pH: 8.2 PO ₄ ³⁻ : 1.28 mg L ⁻¹ SO ₄ ²⁻ : 3,341.76 mg L ⁻¹ Cl: 2,680.25 mg L ⁻¹ Mg ²⁺ : 119.44 mg L ⁻¹ K ⁺ : 15.64 mg L ⁻¹ Si ⁴⁺ : 5.89 mg L ⁻¹ Alkalinity: 114.92 mg L ⁻¹	Epiphyte on shoots of <i>Potamogeton pectinatus</i>	Tomás et al. (1980)
<i>C. caeruleus</i>	Spain	Pego, Alicante (May, Aug, Nov 1979; Feb 1980); ±38°52'31" N, 0°04'58" W	Freshwater	Marjal Mayor spring	Temperature: 17.5–23.0°C pH: 7.8 Cond.: 1,220–1,500 µS cm ⁻¹ O ₂ : 117% NO ₃ : 1.77 mg L ⁻¹ PO ₄ ³⁻ : 0.0063 mg L ⁻¹ SO ₄ ²⁻ : 106.08 mg L ⁻¹ Cl: 481.02 mg L ⁻¹ Ca ²⁺ : 118.67 mg L ⁻¹ Mg ²⁺ : 26.24 mg L ⁻¹ Na ⁺ : 185.61 mg L ⁻¹ K ⁺ : 7.43 mg L ⁻¹ Si ⁴⁺ : 2.98 mg L ⁻¹ Alkalinity: 57.63 mg L ⁻¹	In associations with <i>Potamogeton pectinatus</i> , <i>P. nodosus</i> , <i>Myriophyllum spicatum</i> , <i>Najas marina</i> , <i>Ceratophyllum demersum</i> , <i>Apium nodiflorum</i> and <i>Ulva</i> sp.	Tomás et al. (1980)

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<i>C. caeruleus</i>	Spain	Jeresa, Valencia (May, Aug, Nov 1979; Feb 1980); ±39°00'34" N, 0°12'10" W	Freshwater	La Marchal spring	Temperature: 17.8–22.0°C pH: 7.5 Cond.: 465–600 µS cm ⁻¹ O ₂ : 87% NO ₃ ⁻ : 2.6 mg L ⁻¹ PO ₄ ³⁻ : 0.0047 mg L ⁻¹ SO ₄ ²⁻ : 78.72 mg L ⁻¹ Cl ⁻ : 47.57 mg L ⁻¹ Ca ²⁺ : 111.88 mg L ⁻¹ Mg ²⁺ : 29.4 mg L ⁻¹ Na ⁺ : 20.01 mg L ⁻¹ K ⁺ : 1.17 mg L ⁻¹ Si ⁴⁺ : 4.4 mg L ⁻¹ Alkalinity: 75.31 mg L ⁻¹	In associations with <i>P. pectinatus</i> , <i>P. nodosus</i> , <i>M. spicatum</i> , <i>C. demersum</i> , <i>Lemna trisulca</i> , <i>Nymphaea alba</i> , and <i>Chara aspera</i>	Tomás et al. (1980)
<i>C. caeruleus</i>	Spain	Vinaroz, Castellon (May, Aug, Nov 1979); ±40°28'32.5" N, 0°28'55.8" E	Brackish / saline	No-name coastal lagoon	Temperature: 10–28.0°C pH: 7.8 Cond.: 3,000–7,000 µS cm ⁻¹ O ₂ : 138% NO ₃ ⁻ : 6.32 mg L ⁻¹ PO ₄ ³⁻ : 0.0052 mg L ⁻¹ SO ₄ ²⁻ : 448.32 mg L ⁻¹ Cl ⁻ : 1,768.61 mg L ⁻¹ Ca ²⁺ : 335.44 mg L ⁻¹ Mg ²⁺ : 169.98 mg L ⁻¹ Na ⁺ : 801.78 mg L ⁻¹ K ⁺ : 21.11 mg L ⁻¹ Si ⁴⁺ : 3.03 mg L ⁻¹ Alkalinity: 73.27 mg L ⁻¹	In associations with <i>P. pectinatus</i> , <i>P. pusillus</i> , <i>P. coloratus</i> , <i>Ruppia maritima</i> , <i>Chara major</i> , and <i>C. baltica</i>	Tomás et al. (1980)
<i>C. caeruleus</i>	Spain	Amposta, Tarragona (Jul 1979); ±40°42'31" N, 0°42'16" E	Freshwater	Pla del Notari spring (Ebro Delta)	Temperature: 19°C pH: 7.1 Cond.: 1,689 µS cm ⁻¹ NO ₃ ⁻ : 1.03 mg L ⁻¹ SO ₄ ²⁻ : 81.6 mg L ⁻¹ Cl ⁻ : 334.76 mg L ⁻¹ Alkalinity: 108.8 mg L ⁻¹	In associations with <i>P. pectinatus</i> , <i>P. coloratus</i> , <i>M. spicatum</i> , <i>M. verticillatum</i> , <i>C. demersum</i> , <i>L. trisulca</i> , <i>L. minor</i> , and <i>Utricularia vulgaris</i>	Tomás et al. (1980)
<i>C. caeruleus</i>	Spain	Camarles, Tarragona (Sep 1979); ±40°47'12.3" N, 0°42'19.1" E	Freshwater / brackish	Les Olles coastal lagoon (Ebro Delta)	Temperature: 24°C pH: 7.8 Cl ⁻ : 157.62 mg L ⁻¹ Alkalinity: 58.14 mg L ⁻¹	In associations with <i>P. nodosus</i> , <i>P. pusillus</i> , <i>C. demersum</i> , and <i>Ulva</i> sp.	Tomás et al. (1980)
<i>C. caeruleus</i>	Malta	Marsa (Jul 1977); 35°52'24.59" N, 14°29'27.18" E	Freshwater / brackish	No name channel	ND	In associations with <i>Zanichellia</i> sp., <i>Paspalum paspaloides</i> and <i>Apium nodiflorum</i>	Battiato et al. (1979)

Supplementary Table S1. Continued

Identified as	Country	Stand, (date) and geographic coordinates	Water type	Ecosystem name	Physicochemical and biological properties of water	Other data	References
<i>Compsopogon</i> sp. = <i>C. caeruleus</i>	Spain	Amposta, Tarragona (Nov 1976); ±40°40'16.2" N, 0°35'44.8" E	Freshwater	Ullas del Prat del Notari (Ebro Delta), ponds	pH: 7.2 Water depth: 60 cm	ND	Ferrer and Comín (1979)
<i>Compsopogon</i> sp. = <i>C. caeruleus</i>	Spain	Poble Nou, Tarragona (Dec 1975–Feb 1976; Sep 1976–Feb 1977); ±40°38'57.75" N, 0°39'48.56" E	Brackish	L'Encanyissada (El Clot) coastal lagoon (Ebro Delta)	Temperature: 8.5–26°C pH: 7.5–8.7 Water depth: 20–100 cm Alkalinity: 42.5–79.9 mg L ⁻¹	On a sandy bottom in associations with stone-worts (<i>Nitella</i> sp. and <i>Chara</i> sp.) and <i>Najas marina</i>	Ferrer and Comín (1979)
<i>Compsopogon</i> sp. = <i>C. aeruginosus</i> (Chinchilla and Comin 1977) = <i>C. caeruleus</i>	Spain	Deltebre, Tarragona (Oct 1976); ±40°46'40.8" N, 0°43'08.0" E	Brackish	Gola Nord del riet Zaida (Ebro Delta), channel	pH: 7.3 Water depth: 40 cm	ND	Chinchilla and Comin (1977), Ferrer and Comín (1979), Tomás et al. (1980)
<i>C. caeruleus</i>	Spain	Rial, Coruña (1962–1964); 42°38'48.78" N, 8°45'28.95" W	Brackish	Estuary of the Ulla River	ND	ND	Donze (1968)
<i>C. hookeri</i> = <i>C. caeruleus</i> SAG 37.94	Germany	Bedburg, Northrhine-Westphalia (summer 1965; Aug 1971); 50°59'18.0" N, 6°34'36.5" E	Freshwater	Erfst River	Temperature: 20°C	Epiphyte on <i>Sparganium emersum</i>	Friedrich (1966, 1973), Starmach (1977), Hussner and Lösch (2005), Gutowski and Foerster (2009)
<i>C. caeruleus</i>	France	Banyuls-sur-Mer (ND); ±42°29'14.1" N, 3°07'28.3" E	Freshwater	No-name stream	ND	ND	Boillot (1958)
<i>C. leptoclados</i> (Weiss and Murray 1909) = <i>C. caeruleus</i> (Blackler and Krishnamurthy 1961)	Britain	Manchester, Stockport (Dec 1908; summer 1957); 53°26'2.91" N, 2°09'57.37" W	Freshwater	Reddish Canal (channel)	Temperature: 22.8–23.9°C	Epiphyte on thalli of <i>Pithophora</i> sp., <i>Chara</i> sp. and leaves of <i>Elodea</i> sp., <i>Alisma</i> sp., <i>Potamogeton</i> sp. and <i>Vallisneria</i> sp.	Weiss and Murray (1909), Blackler and Krishnamurthy (1961)

BOD₅, the 5-day biochemical oxygen demand; COD, chemical oxygen demand; Cond., conductivity; N, nitrogen; NTU, nephelometric turbidity unit; P, phosphorus; PSU, practical salinity unit; Pt-Co, platinum-cobalt units; SD, Secchi disc visibility; TDS, total dissolved solids; ND, no data.

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