

The finding of *Compsopogon coeruleus* (Balbis) Montagne in Poland

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Abstract

The rhodophyte — *Compsopogon coeruleus* (Balbis) Mont. found in Poland was described. So far in this country only *C. aeruginosus* (J. Ag.) Kütz. was known in the glasshouse of the Botanical Garden in Cracow (Starmach 1977).

Species of the genus *Compsopogon* grow in tropical and subtropical countries, they have been occasionally found on sites in the moderate zone where they are mostly found in heated bottom cultures in glass-houses and aquaria.

In one Warsaw aquarium the development of relatively large olive-coloured-bluish-green thalli was observed. They were identified as *Compsopogon coeruleus* (Balbis) Montagne. This alga developed on the leaves of *Vallisneria* sp. The water in the aquarium warmed to 25°C was aerated day and night, this ensuring good conditions of development to both plants.

The *Compsopogon coeruleus* thalli were bushy, up to 7 cm high profusely branched (Fig. 1F), with alternating overlying or apparently dichotomic branchings departing from the axis at a sharp angle. The main axis and older branches were coated with cortex. The latter consisted of one layer of polyhedral cells of varying dimensions 17-42 µm long and 18-37 µm wide (Fig. 1C). According to Krishnamurthy (1962) the length of the cortical cells was 16-48 µm and their width 19-20 µm. In the basal distinctly tapering part of the thallus especially, the cortical cells were more elongated and passed into rhizoids attaching the thallus to the substrate (Fig. 1E). The cells of the main axis, spherical or flattened reached a length of 63-150 µm and a width of 58-173 µm. The width of the axial cells with the cortex was 140-230 µm. The young, single-row side branches with cortex not yet developed consisted of disk-shaped or sometimes cylindrical cells (Fig. 1D) of

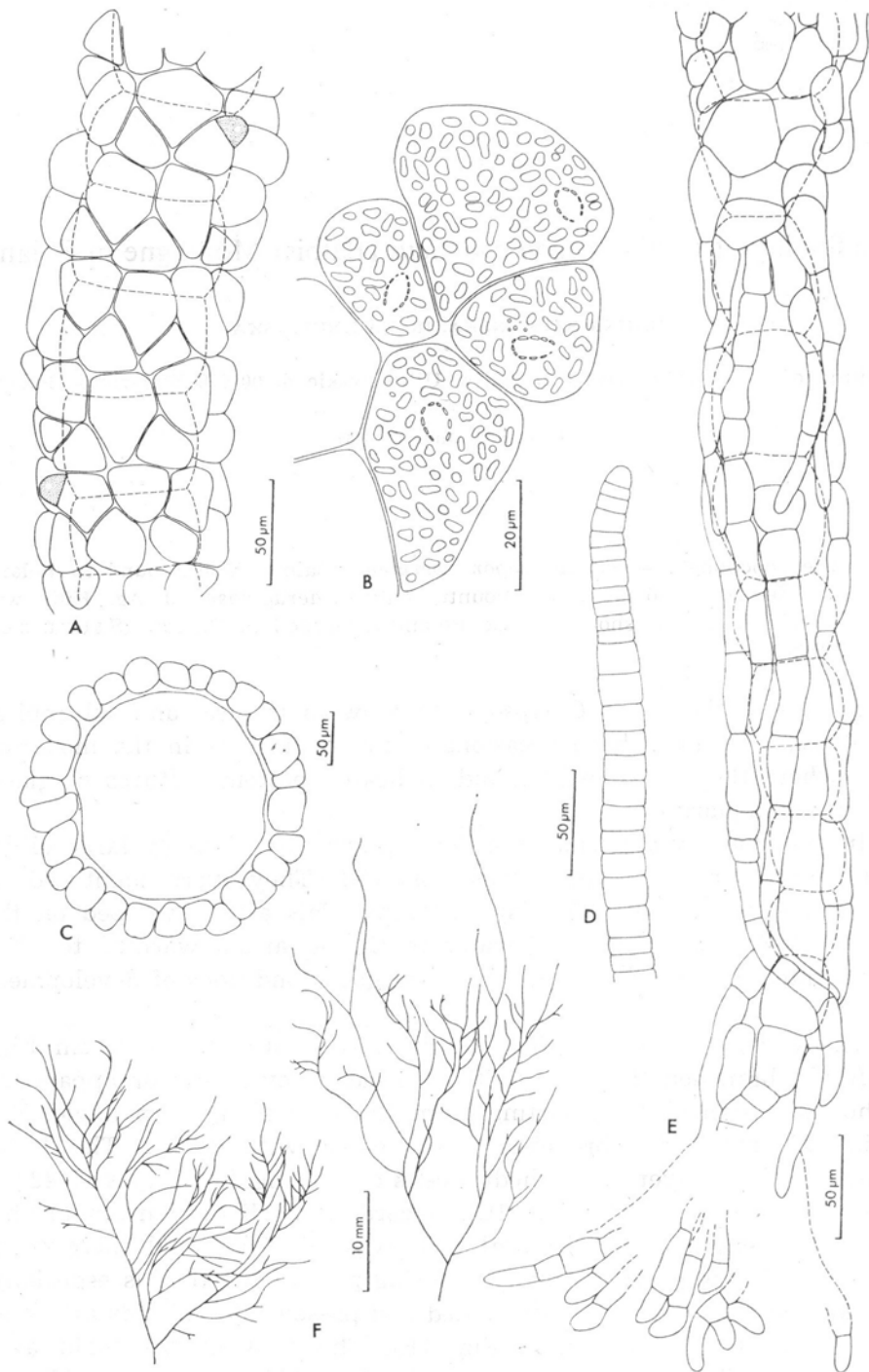


Fig. 1. *Compsopogon coeruleus*: A — fragment of thallus with monosporangia, B — cortical cells with chromatophores, C — cross section through thallus, D — fragment of young branching without cortex, E — cortex of basal part of thallus, F — general habitus of thalli. Outer contour of wall not visualised

dimensions 7.5-17 μm length and 16-27 μm width. The apical cell was always blunt at the end. The chromatophores along the walls were plate-like (Fig. 1B).

Monosporangia arose in the old and young parts of the thallus (Fig. 1A), they were 15-22 μm in diameter, thus somewhat smaller than those observed by Krishnamurthy (1962) or reported by Starmach (1977) — 20-28 μm . No formation of microsporangia was noted.

Compsopogon coeruleus is a widely spread species in fresh and salt waters of many continents. Most numerous sites were recorded in North and Central America, in Asia (India, Birma, Sumatra, the Philippines, Japan) and Africa. In Europe it was found in the Pyrenees (Starmach 1977) and in the Reddish Canal close to Manchester (Krishnamurthy 1961) where the water temperature is 23-24°C. According to Jones (1955), representatives of the genus *Compsopogon* are unable to survive normally in the moderate zone, the Reddish Canal, however, creates favourable conditions for the development of this plant since it receives warmed water from industrial plants. The latter site is considered as the northern boundary of the range of this alga.

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Znalezienie *Compsopogon coeruleus* (Balbis) Montagne w Polsce

Streszczenie

Doniesienie zawiera opis znalezionej w Polsce krasnorostu — *Compsopogon coeruleus* (Balbis) Mont. Dotychczas z tego kraju znany jest tylko *C. aeruginosus* (J. Ag.) Kütz. ze szklarni Ogrodu Botanicznego w Krakowie (Starmach 1977).