

WORLD INTERPOLATION OF THE ADRIATIC PHYTOBENTHOS

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Abstract. One compared the vicarious algae and seagrasses of Adriatic, Mediterranean, and world oceans. Many communities there present a subtropic affinity, except the estuarine ones dominated by cosmopolitans. The Yugoslav coast has 3 main nodes of diversity and endemism: NE. Adriatic with boreal affinity, central isles dominated by W. elements, and SE. coast with these Levantine.

Résumé: Encadrement mondial du phytobenthos adriatique. On a comparé les algues et phanérogames marines vicariantes en Adriatique, Méditerranée et océans du monde. Plusieurs phytocoénoses y ont l'affinité subtropicale, excepté celles des estuaires à domination des cosmopolites. Le littoral yougoslave a 3 nodes de diversité et endémicité: Adriatique nord-est à l'affinité boreale, îles centrales à domination des éléments occidentaux et littoral sud-est à affinité levantine.

One confirmed the subdivision of the phytobenthos along Yugoslav coast in 3 districts (NE, central, and SE. Adriatic), each belonging to a different benthic macrozone of Mediterranean (Thermo-, Eu-, and Sub-Mediterranean zones), and containing an important node of algal richness, diversity and endemism: the archipelagos of Senj, Vis, and Dubrovnik. The few studied Dubrovnik archipelago presents the Thermomediterranean, Levantine and tropical affinities of a Tethyan origin. The second and most studied center (ERCEGOVIĆ & coll.) is this of pelagic isles in central Adriatic (Vis arch.) with more western, Tyrrhenian and Atlantic affinities of a Post-Messinian origin. The NE. Adriatic (Kvarner Gulf) has the Submediterranean, Boreal, and Boreo-Atlantic affinities: *Fucus*, *Pylaiella*, *Catenella*, *Phyllaria*, *Nitellopsis* etc. This confirms a special phyto-geographical position of NE. Adriatic, originated from a tertiary gulf of Para-Tethys, and comparable to the marginal situations of Black and Alboran seas in relation to the Mediterranean. A global study of the affinity of Adriatic phytobenthos in relation to oceans is few applicable by the classic analyses of specific similarity due to too limited areas of many characteristic species. Therefore the method of SCHMID has been used: generic similarity by the vicarious species in complementary habitats, indicating 2 synecological groups of the genera of large distribution. 1. A trans -

oceanic generic stock characterising the macrozonal biomes (Formationsgruppen, vegetational divisions of SOO, and BOLOS indicated by a generic binomial with suffixe -ea), and 2. A world stock of cosmopolitan genera of benthic megatypes (pan-formations, Vegetationstypen, indicated by the suffixe -idea).

The edaphic phytobenthos of brackish waters is without any zonal stock. The photophilic infralittoral grasslands of lagoons and estuaries (Ruppiaetea) have an azonal stock of lagunar halophytes (Ruppia-Coleogetonea) with *Ruppia*, *Coleogeton*, *Zosterella*, *Althenia*, *Monostroma*, and another ubiquitous stock of brackish and freshwaters (Zannichellio-Najadidea): *Zannichellia*, *Najas*, *Potamogeton*, *Batrachium*, *Myriophyllum*, *Ceratophyllum*, *Utricularia*. The special sciaphilic formations of circalittoral lagunar rocks, developed especially in deep karst bottoms of estuarine canyons and in submarine estavelles (vrulje) of subterranean rivers (Charetea) have a stock of sciaphilic halophytes (Lamprothamnio-Charopsea) with *Lamprothamnion*, *Charopsis*, *Nitelopsis*, and another stock of ubiquitous in deep brackish and fresh waters (Tolypello-Charidea): *Chara*, *Tolypella*, *Nitella*, *Lychnothamnus*. The marine grasslands (Zosteretea) have a circum-tropical stock (Cymodoceo-Caulerpea) of *Cymodocea*, *Posidonia*, *Halophila*, *Caulerpa*, *Castagnea*, *Giraudya*, and another cosmopolitan (Polysiphonio-Zosteridea): *Zostera*, *Polysiphonia*, *Melobesia*, *Ectocarpus*, etc. The Adriatic vegetation in mediolittoral rocks ("Chthamaletea") presents a zonal circum-tropical stock (Nemalio-Gonolitheia) of *Nemalion*, *Goniolithon*, *Neogoniolithon*, *Hildenbrandtia*, *Hydroclathrus*, and another subcosmopolitan (Ulothrici -Fucidea): *Fucus*, *Enteromorpha*, *Ulothrix*, *Rivularia*, *Blidingia*, *Bangia*, *Catenella*. The photophilic infralittoral rock vegetation (Cystoseiretea) has also a circum-tropical stock (Dasyclado -Sargassea) of *Sargassum*, *Dasycladus*, *Acetabularia*, *Cladostephus*, *Liagora*, *Colpomenia*, and this one subcosmopolitan (Janio -Ulvidea): *Ulva*, *Jania*, *Padina*, *Gelidium*, *Porphyra*. The sciaphilic coralligene formations (Lithophylletea) have a circum-tropical group (Halimedo-Dictyopterea) of *Halimeda*, *Peyssonnelia*, *Dictyopteris*, *Sphaerococcus*, *Vidalia*, *Halymenia*, *Botryocladia*, *Spyridia*, *Sporochnus*, *Anadyomene*, and this subcosmopolitan (Lithothamnio-Rhodymenidea): *Lithothamnium*, *Rhodymenia*, *Mesophyllum*, *Lomentaria*, *Desmarestia*.