

NOTE ON THE DECAPODS DISTRIBUTIONAL AFFINITY IN THE ALBANIAN COAST

Andrian VASO

Faculty of Natural Sciences, University of Tirana, Albania

The present paper deals with the results of a long-term (1985-1993) faunistic study on decapod crustaceans. The investigation reveals new information about 90 species, 45 of which are new records, increasing the number of known decapod species in Albanian waters to 114, which comprise 55,61% of the Adriatic fauna. Two species, *Thorulus sollaudi* (Zariquiey Cenarro, 1935) and *Calcinus tubularis* (Linnaeus, 1767) are reported for the first time from the Adriatic Sea, (VASO & GJIKNURI, 1993; VASO, in press, a; VASO, in press, b). These data, compared with STEVCIC's (1990) list of Adriatic decapods, rise to 205 the number of decapod species known from the area, if we exclude 7 species of this list whose presence needs further confirmation. The study was performed at 22 quadrats along the continental platform of the Albanian coast. Samples were collected from the shore to 260 m depth. In general, trawling was employed for soft substrates. In shallow waters to 5 m depth, specimens were sampled by hand and by diving during expeditions carried out at 13 coastal stations.

Qualitative affinity of the different sampling quadrats was estimated by the coefficient of Chekanowski :

$$C = 2a / 2a + b + c$$

where : a, the number of common species between quadrats 1 & 2; b, the number of species of quadrat 1 that do not exist in quadrat 2; c, the number of species of quadrat 2 that do not exist in quadrat 1.

Bottom type and biocenosis, as well as the level of abiotic and biotic environmental conditions are basic factors affecting the distribution of decapods. All these factors caused decapod fauna to differ in composition between studied quadrats, which is expressed by the coefficient affinity.

The dendrogram (Fig. 1) brings into evidence a clear cut separation among the shallow sampling quadrats and the deep one. In the shallow group, biotic distinction is characterized by the presence of species with a limited vertical distribution in mediolitoral and infralitoral, as well as by the presence of hard substrates and lagoonar biocenosis where samples were taken. Richness of species and biodiversity of habitats are higher in the shallow group, compared with deep one. The obtained values show greatest affinity between quadrats under man's impact, particularly due to untreated industrial and domestic discharges in the Vlora and Drini Bays (9-11b-33-29). The second subgroup comprises five quadrats (17-20-23-26-30) which have the richest number of species. Rivers affect obviously in this area. Quadrat AB of the Ionian Sea and the last shallow quadrat of the Adriatic Sea, join with this group.

The second group is composed by deep sampling quadrats. It shows very low affinity with the previous group (9,32%). All these quadrats characterized by fairly similar environmental conditions are included in soft substrate, mainly detritic, of circalitoral. The most strongly related subgroup is that of *Nephraps norvegicus* - *Thenea muricata* biocenosis (1-2-25-28).

Area between isobates 55-100 m deep presents as intermediate of both groups.

A more detailed evaluation of these affinities is considered premature for the moment due to the reason that further studies yielding new species from this area will influence the affinity among quadrats.

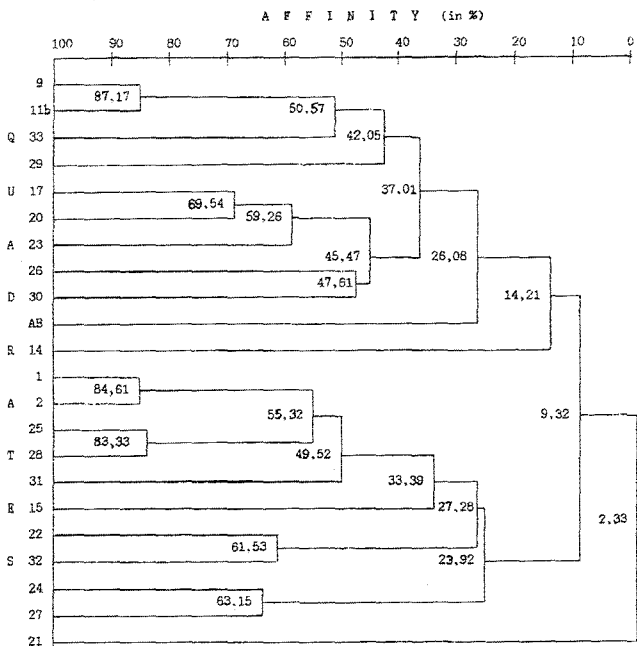


Figure 1 : Dendrogram of decapods distributional affinity

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