

## Behaviour of the small pelagic fish in relation to the sea depth

Long-term investigations on small pelagic fish biology was carried out in Adriatic Sea. Surveys were carried out by »Simrad« - echosounder type 580-4, frequency 30 KHz. Echo-traces of small pelagic fish recorded by echograms of the echosounders were grouped in three categories according to their size, that is area. Relatively large number of observations showed that the relationship between small pelagic fish echo-trace abundance and sea depth showed that fish were concentrated above smaller depths in the coastal and open Adriatic. This it may be concluded that sea depth is one of the factors affecting small pelagic fish distribution to a considerable extent.

(230)

Hrvoje Gomerčić<sup>1</sup>, Đuro Huber<sup>2</sup>, Tomislav Gomerčić<sup>3</sup>, Ana Gomerčić<sup>3</sup>,  
Darinka Škrtić<sup>1</sup>, Snježana Vuković<sup>1</sup>

<sup>1</sup>Zavod za anatomiju, histologiju i embriologiju, Veterinarski fakultet Sveučilišta u Zagrebu,  
41000 Zagreb, Heinzelova 55, Hrvatska

<sup>2</sup>Zavod za biologiju, Veterinarski fakultet Sveučilišta u Zagrebu,  
41000 Zagreb, Heinzelova 55, Hrvatska

<sup>3</sup>41000 Zagreb, Neznane junakinje 1/V., Hrvatska

## Plavobijeli dupin (*Stenella caeruleoalba*, Meyen 1833) godine 1991. po prvi puta nađen u Jadranu

Dosada su u Jadranu nađene ove vrste dupina: obični dupin (*Delphinus delphis*), dobri dupin (*Tursiops truncatus*), glavati dupin (*Grampus griseus*), bijelogrli dupin (*Globicephala melaena*), obalni dupin (*Phocoena phocoena*), jadranski dupin (*Tursiops parvimanus*) i crni dupin (*Pseudorca crassidens*). Osim ovih zabilježeni su i nalazi velikih kitova, koji samo povremeno zalutaju u Jadran. Među zubanima to je glavata ulješura (*Physeter catodon*), a među usanima plavetni kit (*Balaenoptera musculus*), veliki sjeverni kit (*Balaenoptera physalus*), patuljasti kit (*Balaenoptera acutorostrata*) i crni ledni kit (*Eubalaena glacialis*). Iako u Sredozemnom moru živi vrlo brojna vrsta izrazito pelagičnog dupina, plavobijeli dupin, nikada dotada nije bio zabilježen u Jadranskom moru. U posljednjih nekoliko godina odredili smo vrstu u preko 150 jedinki dupina u hrvatskom dijelu Jadrana. U jednom slučaju smo utvrdili, na osnovi osteoloških osobitosti, da je u listopadu 1991. godine na plažu u Lumbardi na otoku Korčuli more izbacilo truplo još živog plavobijelog dupina (*Stenella caeruleoalba*, Meyen 1833). Bila je to fizički potpuno zrela životinja neutvrđenog spola. To je prvi nalaz ove vrste životinje u Hrvatskoj odnosno u ovom dijelu Jadranskog mora. Zasada neznamo da li ovaj nalaz ima kakve veze s velikim pomorom ove vrste dupina, baš u to vrijeme, u Sredozemlju, ali pretpostavljamo da je i on uginuo od infekcije morbilivirusom.

Ponovno iznosimo naš prijedlog da bi u Hrvatskoj trebalo zakonom zaštititi sve naprijed navedene vrste životinja, čiji obrazloženi prijedlog smo posljednji puta uputili krajem prošle godine Ministarstvu graditeljstva i zaštite okoliša Republike Hrvatske te Uredništvu časopisa »Priroda«.

## The striped dolphin (*Stenella caeruleoalba*, Meyen 1833) for the first time found in the Adriatic Sea in 1991

Up to now, in the Adriatic Sea there were found the following cetacean species: common dolphin (*Delphinus delphis*), bottlenosed dolphin (*Tursiops truncatus*), Risso's dolphin (*Grampus griseus*), pilot whale (*Globicephala melaena*), common porpoise (*Phocoena phocoena*), Adriatic dolphin (*Tursiops parvimanus*), false killer whale (*Pseudorca crassidens*), sperm whale (*Physeter catodon*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), little piked whale (*Balaenoptera acutorostrata*) and right whale (*Eubalaena glacialis*). Although in the Mediterranean Sea live very numerous pelagic species of the striped dolphin, up to 1991 the striped dolphin was not found in the Adriatic Sea. In the last few years, in Croatian part of the Adriatic Sea we determined the species of more than 150 dolphin individuals. Only in one case we determined, by osteological analysis and later, by carcass's photo, that, by that moment still alive striped dolphin (*Stenella caeruleoalba*, Meyen 1833) was stranded at Lumbarda beach on Korčula Island on October 1991. It was physically mature animal of unknown gender. It was the first finding of this animal species in Croatia and in this part of Adriatic Sea. At this moment, we do not know if there is any relation between our finding and mass mortality of same species in the Mediterranean Sea, but we suppose that this specimen of striped dolphin died by morbillivirus infection, too. At the end, we want to propose once again the legal protection in Croatia of all cetacean species, mentioned above, which we have sent to the Ministry of Building and Protection of Environment of Croatian government and to the Redaction of »Priroda« magazine at the end of the last year.

(231)

Mladen Šolić, Nada Krstulović

Institut za oceanografiju i ribarstvo, 58000 Split, Meštrovićevo šetalište 63, Hrvatska

## Važnost »mikrobnog kruga« u trofičkom sustavu mora

Bakterijska proizvodnja, te protok bakterijske biomase prema višim trofičkim razinama istraživani su sezonski u Kaštelanskom zaljevu. Posebno je istraživana uloga heterotrofnih nanoflagelata (HNF) kao bakterijskih predatora. Utvrđeno je da u prosjeku oko 80% bakterijske proizvodnje prode kroz flagelatnu komponentu. Od cjelokupne godišnje proizvodnje bakterija HNF ugradi u vlastitu biomasu oko

*Hrvatsko biološko društvo*  
*Croatian Biological Society*

**PETI KONGRES BIOLOGA  
HRVATSKE**

s međunarodnim sudjelovanjem

**THE FIFTH CONGRESS OF  
CROATIAN BIOLOGIST**

with international participation

Pula, 3.-7. 10.1994.

**ZBORNİK  
SAŽETAKA PRIOPĆENJA**

**PROCEEDINGS  
OF ABSTRACTS**

Zagreb, 1994.

**ZBORNIK SAŽETAKA PRIOPĆENJA  
PETOG KONGRESA BIOLOGA  
HRVATSKE**

**PROCEEDINGS OF ABSTRACTS  
OF THE PAPERS PRESENTED  
AT THE FIFTH CONGRESS  
OF CROATIAN BIOLOGISTS**



Uredio: (Edited by):  
**Hrvoje Gomerčić**

**Hrvatsko biološko društvo  
ZAGREB, 1994.**

Rađnjaška podjela  
priprema (edit)  
(Computer support and  
text preparation)  
Tomislav Gomerčić  
(Design done)  
(Open Printing)  
"TISKARA IMPRESA"  
Zagreb