

This volume is dedicated to our defunct colleague dr. Ante ŠIMUNOVIĆ who made a significant contribution to the knowledge of macrobenthic animals in the Adriatic Sea.



Dr. sc. Ante Šimunović
1934 – 2004

Dr. Ante ŠIMUNOVIĆ, Croatian marine biologist, was born in Dračevica on Brač Island on 22 October 1934. He attended elementary school and Classic Gymnasium in Split, and graduated from the Faculty of Natural Sciences at the University of Zagreb. After graduation, Dr. Šimunović began his career as an assistant in the laboratory of zoobenthos at the Institute of Oceanography and Fisheries (IOF) in Split. He retired as the head of the laboratory.

Dr. Šimunović earned his M.Sc. degree at the Zagreb University in 1968 with the thesis "Contribution to Knowledge on Fauna Communities in Relation to Ecological Factors of Supralittoral, Mediolittoral and the Above Part of Infralittoral of Cliffs of Middle Adriatic". This subject, together with study of the different levels of life zones, was his main field of research throughout his career at the IOF and after retirement when he worked as an outside collaborator. He studied the composition and distribution of animals living on the sea bottom, systematically elaborated many macrobenthic animals, and contributed to increasing knowledge of biology and ecology of many benthos species that enabled enactment of responsible laws relating to fisheries and nature protection.

The scientific work of Dr. Šimunović covered different issues such as collecting and determining Gastropoda by giving significant data on their biology and ecology. These data were published in his Ph.D. thesis "Ecological and Biogeographic Studies on Gastropoda Prosobranchiata in the East Adriatic Sea and their Relation to Benthic Biocenosis" in 1991.

In the 1980s, Dr. Šimunović accepted an invitation to join a scientific research group from the western Adriatic that investigated benthic communities with the trawler PIPETA at depths of 12 m in the northern Adriatic to 400 m in the southern. During the PIPETA Expeditions (1982-1995), Dr. Šimunović participated in twenty-four data collecting cruises during all seasons and difficult meteorological conditions, showing how dearly he loved field work and how devoted he was to his research. The expeditions studied all species, not only species of commercial interest. By studying catches, unique qualitative and quantitative data on the distribution of all the invertebrates in an area of 58 509 km² were obtained.

Dr. Šimunović participated in research outside Croatia including Beirut (Lebanon; 1965), Kiev and Odessa (former USSR; 1968), Arcachon (France; 1969), Helsingør (Denmark; 1971), Portorož (Slovenia; 1971-2), Marseille (France; 1973), Taranto (Italy; 1977-9), and Esperegg (Norway; 1980). He participated as the head or a member of numerous research expeditions.

Dr. Ante Šimunović published over fifty papers in domestic and foreign journals, congress proceedings, and reports and was a member of the Biology and Ecology Society (CIESM).

Besides his research work, Dr. Šimunović was particularly devoted to pedagogy and popularization of marine science, especially zoology and ecology. He unselfishly guided his students through graduation and preparation of M.Sc. and Ph.D. theses.

Dr. Šimunović made a significant contribution in introducing the general public to the sea bottom through his co-authorship of the book "Invertebrates of the Adriatic Sea Bottom".

We will all remember our dear colleague Dr. Ante Šimunović not only for his work but also as a friend always ready to help and encourage in overcoming the obstacles during field work on the research vessels "PREDVODNIK" and "BIOS".

Dr. sc. Ivana GRUBELIĆ

Ante ŠIMUNOVIĆ

BIBLIOGRAPHY OF SELECTED PAPERS

1968. Prilog poznavanju faunističkih naselja u odnosu na ekološke faktore supralitorala, mediolitorala i najgornjeg dijela infralitorala hridinastih obala srednjeg Jadrana. Magistarski rad, Sveučilište u Zagrebu, 49 pp.
1969. Prilog poznavanju bentoske faune Pirovačkog zaljeva i mogućnost uzgoja nekih školjkaša. *Thalassia Jugosl.*, 5: 309-314.
1969. /MOROVIĆ, D./. Prilog poznavanju rasta kamenice (*Ostrea edulis* L.) i dagnje (*Mytilus galloprovincialis* Lam.) u Malostonskom zaljevu. *Thalassia Jugosl.*, 5: 237-247.
- 1969a./ BULJAN, M., I. KAČIĆ, D. MOROVIĆ, T. PUCHER-PETKOVIĆ, A. ŠPAN & T. VUČETIĆ/. Ekološka istraživanja Marinskog zaljeva s obzirom na umjetnu fertilizaciju. *Thalassia Jugosl.*, 5: 55-66.
1970. Recherches écologiques sur les peuplements faunistiques de l'étage supralittoral des côtes rocheuses de l'Adriatique moyenne = Ekološka istraživanja faunističkih naselja gornjeg litorala hridinastih obala srednjeg Jadrana. *Acta Adriat.*, 14(2): 1-39.
1971. / GAMULIN-BRIDA, H., S. ALFIREVIĆ, D. CRNKOVIĆ, A. ŠIMUNOVIĆ, S. JUKIĆ, A. POŽAR-DOMAC & M. LEGAC/. A contribution to the investigations of the dynamics of some benthic communities in the Adriatic Sea. *Thalassia Jugosl.*, 7(1): 57-66.
- 1971a. /GAMULIN-BRIDA, H., A. POŽAR & S. JUKIĆ/. Neki podaci o idioekologiji enteropneusta *Glandiceps talaboti* (Marion), nove vrste za Jadransko more. *Ekologija*, 6(1): 141-145.
- 1971b./GAMULIN-BRIDA,H.& A. POŽAR-DOMAC/. Preživljavanje brodolomaca uz pomoć produkata bentoskih biocenoza. Pomorska biblioteka, 23: 435-441.
1972. /GAMULIN, BRIDA, H., A. ŠPAN, A. POŽAR-DOMAC & S. ŠOBOT/. Recherches sur les propriétés océanographiques et biologiques de la région côtière de Dubrovnik en vue de la détermination de la localisation la mieux appropriée pour la décharge des eaux résiduaires urbaines. *J. Etud. Pollutions*, CIESMM, 71-72.
- 1972a. /GAMULIN-BRIDA, H., D. CRNKOVIĆ & S. JUKIĆ/. Characteristic and dominant species of Crustacea Decapoda in Adriatic biocoenosis «*Nephrops norvegicus* – *Thenea muricata*». *Thalassia Jugosl.*, 8(1): 881-897.
1973. /MOROVIĆ, D./. Croissance des huîtres en fonction de la profondeur. *Etud.Rev. CGPM*, 52: 67-71.
- 1973a. /GAMULIN-BRIDA, H., A. POŽAR-DOMAC & A. ŠPAN/. Les conséquences de la pollution des eaux sur les biocoénoses benthiques. Groupement des biocoénoses benthiques de la mer Adriatique du point de vue de pureté des eaux. *Atti, 5 Coll. Oceanogr. Med.*, Messina, 137-158.
1974. /GAMULIN-BRIDA, H., A. ŠPAN, S. ŠOBOT & A. POŽAR-DOMAC/. Ricerche biocenologiche e batteriologiche, dal punto di vista della polluzione del mare e della sua protezione, sulla costa orientale del medio e basso Adriatico. Bari: Inst. zool. Univ. 1974, IV simp.naz. e Conserva. d. Natura, 2, pp. 447-463.
- 1974a. /GAMULIN-BRIDA, H. & A. POŽAR-DOMAC/. Bentoske biocenoze Jadranskog mora kao novi izvori hrane i raznih sirovina s posebnim obzirom na spužve i koralje = Benthic biocoenoses of the Adriatic as new sources of food and various raw materials, with special consideration for sponges and corals. *Acta Adriat.*, 16(4): 71-95.
1975. Problemi uzgoja kamenica u Malostonskom zaljevu. *Morsko ribarstvo*, 27(2): 51-54.
1975. /GAMULIN-BRIDA, H., V. ILIJANIĆ & A. POŽAR-DOMAC/. Enteropneustes dans les biocoénoses benthique de la mer Adriatique. *Biosistematička*, 1(1): 115-124.
- 1975a. /GAMULIN-BRIDA, H., D. CRNKOVIĆ & S. JUKIĆ/. Problèmes de la reproduction du Crustacé Décapode *Nephrops norvegicus* (L.) du point de vue de la pêche sur la côte orientale de la mer Adriatique. *Pubbl. Staz. Zool. Napoli*, 39(Suppl.): 190-211.

- 1975b. /GAMULIN-BRIDA, H. & A. POŽAR-DOMAC/. Pojava i učestalost nekih otrovnih vrsta u bentoskim biocenozama na našoj obali Jadranskog mora. Pomorska biblioteka, 26: 637-643.
- 1975c. /GAMULIN-BRIDA, H., A. ŠPAN & A. POŽAR-DOMAC/. Aperçu sur les biocoénoses benthiques de la région des îles de Kornati (Adriatique moyenne) et les problèmes de zones sous-marines protégées. Rapp. Comm. int. Mer Médit., 23(2): 101-102.
- 1975d. /GAMULIN-BRIDA, H., A. ŠPAN & A. POŽAR-DOMAC/. Action de la pollution organique sur l'accroissement du nombre des coliformes et les modifications dans les biocoénoses benthiques de la région côtière de l'Adriatique méridionale (Dubrovnik) et moyenne (Split, Šibenik). Rapp. Comm. int. Mer Médit., 23(2): 99-100.
1977. /GAMULIN-BRIDA, H., D. CRNKOVIĆ, A. ŠPAN, A. POŽAR-DOMAC, S. JUKIĆ & M. LEGAC/. Expériences et résultats des recherches pluriannuelles sur les biocoénoses benthiques des surfaces permanentes de l'Adriatique. Ekologija, 12(2): 115-127.
- 1977a. /GAMULIN-BRIDA, H., A. ŠPAN, S. JUKIĆ & A. POŽAR-DOMAC/. Valorisation biologique des peuplements benthiques dans la région orientale de la mer Adriatique. Rapp. Comm. int. Mer Médit., 24(4): p.119
1979. /GAMULIN-BRIDA, H., A. ŠPAN & A. POŽAR-DOMAC/. Recherches sur les biocoénoses benthiques par la méthode des surfaces permanentes. Rapp. Comm. int. Médit., 25-26(4): 277-278.
- 1979a. /GAMULIN-BRIDA, H. & Z. MIKULIĆ/. Le statut récent du Phoque moine – *Monachus monachus* (Hermann 1779) en Adriatique. Rapp. Comm. int. Mer Médit., 25-26(10): 141-142.
1980. /MOROVIĆ, D./. A contribution to the knowledge of the variations in the larvae of oyster, *Ostrea edulis* L., in the area of the Bay of Mali Ston = Prilog poznavanju kretanja larvi kamenice, *Ostrea edulis* L., u području Malostonskog zaljeva. Acta Adriat., 21(2): 195-201.
- 1980a. /MOROVIĆ, D./. Prilog poznavanju rasta kamenice *Ostrea edulis* L. i dagnje *Mytilus galloprovincialis* Lmk. u Malostonskom zaljevu. Acta Biocovica, 1: 269-277.
- 1980b. /ANTOLIĆ, B./. Promjene izazvane zemljotresom u bentoskim biocenozama Bokokotorskog zaljeva. Zbornik radova. Simpozij o zemljotresu na Crnogorskem primorju od 15.04.1979. Herceg Novi, 15-17.04. 1980, pp. 473-480.
1981. Biološko-ekološka istraživanja jestivih školjaka Malostonskog zaljeva. Savjetovanje Malostonski zaljev. Prirodna podloga i društveno valoriziranje, JAZU. Dubrovnik, 12-14.11.1981, pp. 252-267.
1981. /ZAVODNIK, D., A. ŠPAN, N. ZAVODNIK & B. ANTOLIĆ/. Benthos of the western coast of the island Krk (Rijeka Bay, the North Adriatic Sea). Thalassia Jugosl., 17(3/4): 285-337.
- 1981a. /GAMULIN-BRIDA H., A. ŠPAN, A. POŽAR-DOMAC, B. ANTOLIĆ & I. GRUBELIĆ/. Ekološko-evolutivne serije bentoskih biocenosa u Jadranskom i Sredozemnom moru. Zbornik sažetaka priopćenja. Prvi kongres biologa Hrvatske. Hrvatsko biološko društvo, Zagreb, p. 187.
- 1981b. /ŠPAN, A., H. GAMULIN-BRIDA, A. POŽAR-DOMAC, B. ANTOLIĆ & I. GRUBELIĆ/. Utjecaj zagađenja mora na neke bentoske životne zajednice na istočnoj obali Jadrana. Zbornik sažetaka priopćenja. Prvi kongres biologa Hrvatske. Hrvatsko biološko društvo, Zagreb, p. 188.
1983. /GAMULIN-BRIDA, H., A. ŠPAN, A. ANTOLIĆ & A. POŽAR-DOMAC/. Les caractéristiques de certaines biocoénoses benthiques de la région des îles des Kornati (Mer Adriatique). Rapp. Comm. int. Mer Médit., 28(3): 195-196.
- 1983a. /JUKIĆ, S./. Quantitative and qualitative relationship between demersal resources of the Adriatic in connection to bottom sediments and sea depth. FAO Fish. Rep., 290: 187-190.
1985. /ZAVODNIK, D./. On some Echinoderm rarely noted in the Adriatic Sea. Rapp. Comm. int. Mer Médit., 29(5): 299-300.
- 1985a. /PICCINETTI, C. & S. JUKIĆ/. Distribution and abundance of *Chlamys opercularis* (L.) and *Pecten jacobaeus* (L.) in the Adriatic Sea. FAO Fish. Rep., 345: 99-105.

- 1985b. /GRUBELIĆ, I./. Données sur une nouvelle l'espèce *Lophogorgia ceratophyta* (L., 1758), rare en Adriatique (Octocorallia, Gorgoniidae). Bilješ.-Notes., Inst. oceanogr. ribar., Split, 62: 1-5.
1988. /JUKIĆ, S./. Količine, rasprostranje i mogućnosti uzgoja dviju školjki: Kapica (*Chlamys opercularis*) i Jakobova kapića (*Pecten jacobaeus*) na istočnoj obali Jadrana. Morsko ribarstvo, 49(1): 15-18.
- 1988a. /JUKIĆ, S./. Relationship between edible (epifauna) trawl catch abundances over the Adriatic continental shelf. Atti I Sem. Ital. Cens. Faun., Urbino, 326-336.
1989. Genus *Patella* (Prosobranchia) in the Adriatic Sea. Period. biol., 91(1): p.121.
1990. /GRUBELIĆ, I., M.TUDOR & M. HRS-BRENKO/. Sexual cycle and biometry of date shell, *Lithophaga lithophaga* Linnaeus (Mytilidae) = Spolni ciklus i biometrija prstaca, *Lithophaga lithophaga* Linnaeus (Mytilidae). Acta Adriat., 31(1/2): 139-151.
1991. Ekološka i biogeografska istraživanja puževa prednješkrnjaka (Gastropoda, Prosobranchiata) u istočnom dijelu Jadranskog mora i njihov odnos prema benthoskim biocenozama. Doktorska disertacija. Sveučilište u Zagrebu, 283 pp.
1992. Zoobentos of Kaštela Bay: state and problems. Acta Adriat., 33(1/2): 163-168.
- 1992a. Biogeographical considerations of the Adriatic Prosobranchiata. Acta Adriat., 33 (1/2): 169-172.
1992. /GRUBELIĆ, I./. Biological and ecological studies of the dateshell (*Lithophaga lithophaga* L.) from the eastern Adriatic Sea. Period. biol., 94(3): 187-192.
1994. The genus *Galeodea* Link, 1807.(Gastropoda, Prosobranchia-Cassidae) in the Adriatic Sea. Period. biol., 96(3): 205-209.
1995. Ecological study of Prosobranchiata (Gastropoda) in the eastern part of the Adriatic Sea and their relationship to benthic biocoenoses. Acta Adriat., 36(1/2): 3-162.
1996. /GRUBELIĆ, I./. Doprinos saznanju o biologiji i ekologiji prstaca (*Lithophaga lithophaga* L.) u Jadranu. Pomorski zbornik, 34(1): 361-372.
- 1996a. /ŠPAN, A., B. ANTOLIĆ, I.GRUBELIĆ & S. JUKIĆ/. Ecological study of gas fields in the northern Adriatic: 12. Ecological features of the benthic community. Acta Adriat., 37(1/2): 161-194.
1997. Quantitative and qualitative investigations of benthic communities in the areas of mobile bottoms of the Adriatic Sea. Acta Adriat., 38(1): 77-194.
1997. /ZAVODNIK, D./. Beskralješnaci morskog dna Jadranu. Svjetlost. Sarajevo, 217 pp.
- 1997a. /GRUBELIĆ, I./. Prilog poznавању benthoske faune šireg područja Splita. Zbornik radova znanstvenog skupa Tisuću godina spomena ribarstva u Hrvata. Hrvatska akademija znanosti i umjetnosti, Zagreb, pp. 613-627.
- 1997b. /GRUBELIĆ, I./. Prilog poznавању vrste *Holothuria tubulosa* Gmelin(Echinodermata) u obalnom dijelu srednjeg Jadranu = A contribution to the knowledge of the species *Holothuria tubulosa* Gmelin(Echinodermata) in the coastal part of the middle Adriatic. Zbornik sažetaka priopćenja. Šesti kongres biologa Hrvatske, Opatija, 22-26. rujna 1997. Hrvatsko biološko društvo, Zagreb, pp. 316-317.
- 1997c. /PICCINETTI, C., I. GRUBELIĆ & M. BARTULOVIĆ/. Rasprostranje i abundancija vrste *Aequipecten opercularis* (L.) u Jadranu = Distribution and abundance of the species *Aequipecten opercularis* (L.) in the Adriatic Sea. Zbornik sažetaka priopćenja. Šesti kongres biologa Hrvatske, Opatija, 22-26. rujna 1997. Hrvatsko biološko društvo, Zagreb, pp. 311-312.
1998. /GRUBELIĆ, I./. A contribution to the knowledge of the species *Holothuria tubulosa* Gmelin, 1788 (Holothuria, Echinodermata) in the coastal area of the central eastern Adriatic. Acta Adriat., 39(1): 13-23.
- 1998a. /GRUBELIĆ, I. & B. ANTOLIĆ/. Benthic flora and fauna in a submarine cave in the central Adriatic Sea. Rapp. Comm. int. Mer Médit., 35(2): 446-447.
1999. *Cymatium corrugatum* (Lamarck 1816) Gastropoda, Prosobranchia. A new species for the Adriatic. Oceanol. Acta, 22(1): 133-136.

1999. /PICCINETTI, C. & M.ZORE-ARMANDA/. Kill of benthic organisms as a reponse to an anoxic state in the northern Adriatic Sea (a critical review). *Acta Adriat.*, 40(1): 37-64.
2000. /PICCINETTI MANFRIN, G., M. BARTULOVIĆ & M. GRUBELIĆ/. A contribution to the knowledge of the species *Rissoides desmarestii* (Risso, 1816) and *Rissoides pallidus* (Giesbrecht, 1910), (Stomatopoda) in the Adriatic Sea. *Period. biol.*, 102(2): 195-200.
- 2000a. /PICCINETTI, C., M. BARTULOVIĆ & I. GRUBELIĆ/. Distribution and abundance of the species *Holothuria tubulosa* Gmelin, 1788 and *Holothuria forskali* Delle Chiaje, 1823 (Holothuria Echinodermata) in the Adriatic Sea. *Acta Adriat.*, 41(2): 3-16.
- 2000b. /DULČIĆ, J./. Dr. fra Jure Radić – botaničar, malakolog i ekolog (1920-1990). *Annales*, 1(19):121-124
- 2000c. /DESPALATOVIĆ, M. & I. GRUBELIĆ/. Reproduktivni ciklus vrste *Holothuria tubulosa* (Echinodermata) u Jadranu = Reproductive cycle of the species *Holothuria tubulosa* (Echinodermata) in the Adriatic Sea. Sedmi kongres biologa Hrvatske, Hvar, 24-29. rujna 2000. Zbornik sažetaka priopćenja. Hrvatsko biološko društvo, Zagreb, pp. 165-166.
2001. Dosadašnja saznanja o vrsti *Lithophaga lithophaga* L. (prstac) u Jadranu. *Hrvatska vodoprivreda*, 10 (100): 84-89.
- 2001a. Stanje i problemi uzgoja kamenice i dagnje u Malostonskom zaljevu. *Hrvatska vodoprivreda*, 10 (108): 33-35.
2001. /BARTULOVIĆ, M. & I. GRUBELIĆ/. Catch of the species *Holothuria tubulosa* Gmelin, 1788 on continental shelf in the Adriatic Sea. *Rapp. Comm. int. Mer Médit.*, 36: p. 235.
- 2001a. /PICCINETTI, C., M. BARTULOVIĆ & I. GRUBELIĆ/. Distribution of *Atrina fragilis* (Pennant, 1777) (Pinnidae, Molusca Bivalvia) in the Adriatic Sea. *Acta Adriat.*, 42(1): 61-70.
- 2001b. /GRUBELIĆ, I., B. ANTOLIĆ, M. BARTULOVIĆ & A.ŽULJEVIĆ/. Does tropical alga *Caulerpa taxifolia* (Vahl.) C. Agardh influence the macrozoobenthos composition? *Rapp Comm. int. Mer Médit.*, 36: p. 390.
2002. /PICCINETTI, C., M. DESPALATOVIĆ & I. GRUBELIĆ/. Experimental catches and distribution of Queen scallop *Aequipecten opercularis* (Linnaeus, 1758) (Pectinidae, Molusca Bivalvia) in the Adriatic Sea. *Acta Adriat.*, 43(2): 49-57.
2003. /DESPALATOVIĆ, M., I. GRUBELIĆ, B. ANTOLIĆ & A. ŽULJEVIĆ/. New data about reproduction of the holothurian *Holothuria forskali* (Echinodermata) living in geographically different places. *Fresen. Environ. Bull.*, 12 (11): 1345-1347.
- 2003a. / PICCINETTI, C., G. BEG PAKLAR, M. DESPALATOVIĆ, I. GRUBELIĆ, B. ANTOLIĆ & A. ŽULJEVIĆ/. The occurrence of hypoxia in the Northern Adriatic at the end of 1994. *Fresen. Environ. Bull.*, 12(7): 740-745.
2004. Malostonski zaljev – biser Jadrana = Mali Ston Bay – Adriatic pearl. *Naše more*, 51(1/2): 12-16.
2004. /DESPALATOVIĆ, M., I. GRUBELIĆ, B. ANTOLIĆ & A. ŽULJEVIĆ/. Reproductive biology of the holothurian *Holothuria tubulosa* (Echinodermata) in the Adriatic Sea. *J. Mar. Biol. Ass. UK*, 84(2): 409-414.
2004. /DESPALATOVIĆ, M. & I. GRUBELIĆ/. Catches of the holothurian *Stichopus regalis* (Cuvier, 1817) during the «Pipeta» Expedition in the Adriatic Sea. *Rapp. Comm. int. Mer Médit.*, 37: p. 345.
- 2004a. /GRUBELIĆ, I. & M. DESPALATOVIĆ/. The date-shell *Lithophaga Lithophaga* L. colonization of immersed rocks at the eastern part of the Adriatic Sea. *Rapp. Comm. int. Mer Médit.*, 37: p. 520.