**Name and Surname:** Sanja Tomšić, sanja@unidu.hr

**Scientific Personal Identification Number:** 276082

**Curriculum vitae:** (max 1 page)

Born in Dubrovnik, 29.7.1970. Received a Bachelor of Biology in 1992 (SUNY at Stony Brook, USA); PhD in Biotechnology 2010 (Faculty of Agriculture, Zagreb). Senior scientific associate; Associate professor at University of Dubrovnik. Founding member of the undergraduate study programs; “Applied marine ecology” and “Aquaculture”, graduate program “Mariculture” at the University of Dubrovnik. Research interests; early development and larvae culture of sea urchins, biology, ecology and aquaculture of marine invertebrates, research on qualitative analysis of bioactive compounds in marine invertebrates.

**Employment**: University of Dubrovnik

**Major areas of research**: Biology, ecology and diversification in aquaculture with marine invertebrates, IMTA

**Specific technical skills and competencies:**

Science promotion: Organization of field and laboratory experimental work for current and perspective students

**Participation in scientific projects:**

Collaborator on 5 international scientific projects (EU funded)

Collaborator on three scientific projects funded by the Ministry of Science Education and Sport (Nationally funded)

**Cited articles:**

Nekvapil, F., Molnar Muller, Cs., **Tomsic, S**., Cinta Pinzaru, S. (2020) Exploring the biological protective role of carotenoids by Raman spectroscopy: mechanical stress of cells. // Studia UBB Physica, 64(1-2): 75-82.

Nekvapil, F., Brezeştean, I., **Tomšić, S**., Müller, Cs., Chiş, V., Cintă Pinzaru, S. (2019) Microsphere packages of carotenoids: intact sea urchin eggs tracked by Raman spectroscopy tools. // Photochem. Photobiol. Sci. 18: 1933-1944.

Cinta Pinzaru, S., Muller, C., **Tomšić, S**., Venter, M., Brezestean, I., Ljubimir, S., Glamuzina, B. (2016). Live diatoms facing Ag nanoparticles: surface enhanced Raman scattering of bulk *Cylindrotheca closterium* pennate diatoms and of the single cells†. // RSC Advances. 6 (2016): 42899-42910 (cited 2 times; IF-3.108, Q2)

Cintă Pinzaru, S., Müller, C., **Tomšić, S**., Venter, M., Cozar, I., Glamuzina, B. (2015) New SERS feature of β-carotene: consequences for quantitative SERS analysis. // Journal of Raman Spectroscopy. Vol. 46: 597-604

**Tomšić, S**., Alexis, J.C., Ivica, A. (2015) Growth and Gonad Changes in Stony Sea Urchin, *Paracentrotus Lividus* (Lamark, 1816) Fed Artificially Formulated Feed and Benthic Macrophyte Diet. // Mare Nostrum (Naše More). 62 (2): 85-90

**Tomšić, S**. Stanković, S., Lucu, Č. (2011) Oxygen consumption rate and Na+/K+-ATPase activity in early developmental stages of the sea urchin *Paracentrotus lividus* Lam.. // Helgoland marine research. Vol. 65 3: 431-434

T. Dobroslavić, Bartulović V., Lučić D., **Tomšić S**. i Glamuzin B. (2010) Recruitment Characteristics of Juvenile Salema, *Sarpa Salpa* (Linnaeus, 1758), in Donji Molunat Bay, Southeastern Adriatic Coast, Croatia. // Mare Nostrum (Naše More) 57 (3/4): 146-152

Č. Lucu, Dupčić-Radić I., **Tomšić S.** (2010) Methyl mercury inhibits short-circuit current and Cl influx across isolated epipodite of European lobster (*Homarus gammarus*) Source: Comparative Biochemistry and Physiology Part C: Pharmacology, Toxicology and Endocrinology (1532-0456) 149: 476-480

Glamuzina, B., Dulčić, J., Tutman, P., Matić-Skoko, S., **Tomšić, S**., Bartulović,V. (2010) [Record size of *Salmo dentex* (Heckel, 1851) (Salmonidae) from Neretva River (Bosnia and Herzegovina)](http://bib.irb.hr/prikazi-rad?&rad=382730). // Cybium. 33 (2): 165-167.

Bartulović, V., Lučić, D., Zlatović, A., Dobroslavić, T., **Tomšić, S**., Glamuzina, B. (2010) Recruitment characteristics of juvenile golden grey mullet *Liza aurata* (Risso, 1810) and flathead grey mullet, *Mugil cephalus* (Linnaeus, 1758) from Neretva river estuary. // Fishery (Ribarstvo) **68** (2) 61-78

Dulčić, J., Tutman, P., Prusina, I, **Tomšić, S**., Dragičević B., Hasković E., Glamuzina B. (2010) Length-weight relationships for six endemic freshwater fishes from Hutovo blato wetland (Bosnia and Herzegovina). // Journal of Applied Ichthyology. 25 (4) 499-500

**Conferences:**

Nekvapil, F., Brezeştean, I., **Tomsic, S**., Muller, Cs., Chis, V., Cintă Pinzaru, S. (2018) Rapid and cost effective tracking carotenoids in native sea urchin eggs by mullti-laser Raman spectroscopy. In: Vodnar, D.C. (ed.) Book of Abstracts. Faculty of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca, 2018.

Nekvapil, F., Brezestean, I., Glamuzina, B., **Tomsic, S**., Barbu-Tudoran, L., Chis, V., Cinta Pinzaru, S. (2018) Natural Biocomposite material with antioxidant properties and a source of valuable compounds: the cuticle of *Squilla mantis* shrimp. In: Florescu, M., Raicu, V., Turcu, I. (eds.) Book of Abstracts. Transilvania University Press, Brasov. ISSN: 2360-3461, p. 153.

Nekvapil, F., Brazestean, I., **Tomsic, S**., Cinta Pinzaru, S. (2018) Translation of SERS technique to hydrobiology: use of metallic plasmonic nanoparticles to quench fluorescence in Raman spectroscopy analysis of natural fluids. In: Florescu, M., Raicu, V., Turcu, I. (eds.) Book of Abstracts. Transilvania University Press, Brasov. ISSN: 2360-3461, ISSN-L: 2360-3461. p. 60

Nekvapil, F., Brezestean,I, Glamuzina, B., **Tomšić, S**., Barbu-Tudoran, L., Chis, V., Cinta

Pinzaru,S. (2018) Natural Biocomposite Material with Antioxidant Properties and a Source ofValuable Compounds: the Cuticle of *Squilla mantis* Shrimp. IC-ANMBES 2018, Eds. M. Florescu, V. Raicu, I. Turcu, 2018 Brasov, Romania

Nekvapil, F., **Tomšić, S**., Cintā Pinzaru, S. (2018) Comparative Raman spectroscopy study of the coelomic fluid of grazing sea urchins and their native seawater: prospect for a potential indicator of environmental aggression. In: Şerban, G., Bătinaș, R., Tudose, T., Horváth, Cs., Croitoru, A., Holobâcă, J. (eds.) Air and water components of the environment. University Press, Cluj-Napoca, ISSN: 2067-743. p. 27 – 34.

Cintă Pinzaru, Nekvapil, F., Ljubimir, S., **Tomšić, S**., Glamuzina, B., Brezestean, I., Venter, M.M., Andronie, L.M., Barbu-Tudoran, L., Suciu, M., Chis, V. (2017) Fucoxanthin distribution in single pennate diatom cell in vivo and cell reaction under aggression. In: Vodnar, D.C. (ed.) Book of Abstracts, no. 4/2017. Faculty of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, ISSN: 2392-6937, ISSN-L: 2392-6937. p. 231.

Nekvapil, F., **Tomšić, S**., Glamuzina, B., Barbu-Tudoran, L., Brezestean, I., Cintă Pinzaru, S. (2017) Natural nanoarchitecture of blue crab (*Callinectes sapidus* Rathbun, 1896) claw studied by Raman spectroscopy and Scanning electron microscopy. In: Vladoiu, R., Mandes, A., Dinca Balan, V. (eds.) Conference proceedings. Issue 17/2017, University of Ovidius Press, ISSN 2501-9050, ISSN-L 2501-9058. p. 146 – 147

Cintă Pinzaru, S., Müller, C., **Tomšić, S**., Glamuzina, B. (2016) Organic photoreceptor matrix evidence in biogenic calcite of urchin spine. In: 11th International Conference on Physics of Advanced Materislas ICPAM T8-04. 271. In: (ed.) S. Popescu, M. Irimia, M. Toma, G. Rusu, Ed. Univ.Al.I. Cuza, Iasi. Cluj-Napoca.

Bartulović, V., **Tomšić, S**., Matić, Katarina. (2010) Biological and fishery characteristics of sand smelt, *Atherina boyeri* in Neretva river estuary. In: (ed.) Glamuzina, B., Dulčić, J. Fish and fisheries of Neretva. University of Dubrovnik and Dubrovnik-Neretva county, 115-126.

Dulčić, J., Tutman, P., Glamuzina, B., Kraljević, M., Bartulović, V., **Tomšić, S**., Matić-Skoko, S., Skaramuca, B. (2010) Early developmental stages of fish in wider Neretva river estuary: Research review. In: (ed.) Glamuzina, B., Dulčić, J. Fish and fisheries of Neretva. University of Dubrovnik and Dubrovnik-Neretva county, 76-91.

**Tomšić S.** and Kožul V. (2009) Possibility of sea urchin, *Paracentrotus lividus* (Lamarck 1816) introduction into multitrophic (IMTA) aquaculture system, new species in southeastern Adriatic, In: (ed.) Marić S. i Lončarić Z. 44. Croatian adn 4. International Symposium on Agriculture, Opatija: 211

**Tomšić S.** and Lucu Č. (2008) Na, K – ATPase enzyme activity during embryological development of stony sea urchin, *Paracentrotus lividus* (Lamarck 1816), In: (ed.) Pospišil M. Book of abstracts 43. Croatian and 3. International Symposium on Agriculture, Opatija: 207-208

**Tomšić S.** and Kožul V. (2007) Morfometric characteristics and developmental changes of gonadosomatic indexs of sea urchin, *Paracentrotus lividus* in semi-closed culture system. In: (ed.) Pospišil M. 42. Croatian and 3. International Symposium on Agriculture, Opatija: 190-191

A. B. Cetinić, Gavrilović A., Dupčić I., Pečarević M., **Tomšić S**., Marčelja E., Glamuzina B. (2007) Reproductive characteristics of marine clam, *Chamelea gallina* Linnaeus, 1758 (Bivalvia, Mollusca) from Neretva river estuary. In: (ed.) Pospišil M. Book of abstracts 42. Croatian and 3. International Symposium on Agriculture, Opatija: 192-193

**Tomšić S**. and Glamuzina B. (2006) Characteristics of gonad morphology in stony sea urchin, *Paracentrotus lividus* in Bistrina, Mali Ston Bay. In: (ed.) Jovanovac S. and Kovačević V. Book of abstracts 41. Croatian and 1. International Symposium on Agriculture, Opatija: 535-536

V. Kožul, Antolović N., Onofri V. and **Tomšić S**. (2006) Experimental aquaculture of early developmental stages of saddled seabream (*Oblada melanura*, Linnaeus, 1758), U: (ed.) Besendorfer V. and Klobučar G. Book of abstracts 9. Croatian Biological Congress, Rovinj: 299-300