



DEVELOPMENT OF INTEGRATED AQUACULTURE IN ZONE Z1, ZADAR COUNTY, CROATIA

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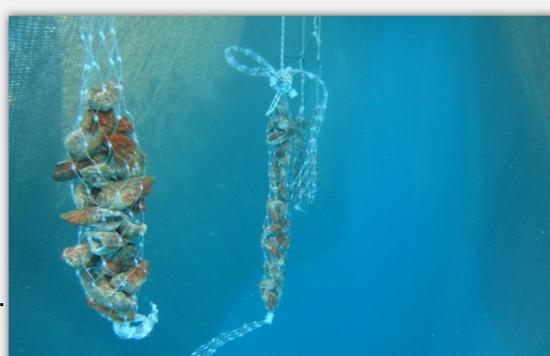
INTRODUCTION

Integrated multitrophic aquaculture (IMTA) is recognized worldwide as a solution for mitigation of environmental impact and economical and social sustainability. Several studies in the Mediterranean suggested a great potential for development of sustainable aquaculture under IMTA principles. Over 50% of Croatian sea bass, sea bream and tuna production is situated in Zadar County which makes it the main aquaculture area in the Croatia.



ZADAR COUNTY – ZONE Z1

In planning of further development of this county, integrated coastal management principles were used and zones (Z1 – Z4) for aquaculture were proclaimed. Zone Z1 was selected as area where aquaculture is a top priority and where integrated aquaculture combining fish and bivalves is planned. Study conducted in Z1 zone (Peharda et al. 2007; Župan et al. 2012) demonstrated that mussel (*Mytilus galloprovincialis* Lamarck, 1819) has the same production cycle as in traditional areas such as Mali Ston Bay, coupled with adequate meat quality. Further more, preliminary data show that cca 5kg of mussel spat per 1 meter of submerged rope can be collected in vicinity of the fish farm installations. Increased condition indices on locations close to fish farms in comparison to natural populations were noticed also for Noah's ark (*Arca noae* Linnaeus, 1758), while preliminary research shows great potential for production of two valuable bivalves – oyster *Ostrea edulis* Linnaeus, 1758 and pectinid *Mimachlamys varia* (Linnaeus, 1758).



CONCLUSION

All producers in the area have shown interest for diversification of production through shellfish farming. Two EU projects (IPA, FP7) are under evaluation for examining all aspects of the potential for IMTA in Z1 zone. These projects will evaluate production capacity and health standards for bivalves. The final goal is to classify zone Z1 as a shellfish production area according to EU health standards.

