



Returning of *Epinephelus aeneus* in Gokova Bay Marine Protected Area, Turkey

¹Zafer Ali Kizilkaya*, ¹²Inci Tuney Kizilkaya, ³Vahdet Unal

¹Mediterranean Conservation Society, Doğa Park Villaları No:16 Kalabak Urla Izmir Turkey
kizilkaya.zafer@gmail.com

²Ege University, Faculty of Science, Department of Biology 35100, Bornova, Izmir, Turkey
tuneyinci@gmail.com

³Ege University, Faculty of Fisheries, 35100, Bornova, Izmir, Turkey
vahdetunal@gmail.com

Abstract

Fishing is one of the largest employment sectors for approximately 100 families in Gokova Bay. From 2006 to 2009 the local fishing resources were in serious decline and fishing communities were suffering from loss of income as their main income species white grouper, *Ephinephelus aeneus*, generated their 32% income, dropped to 10%. Part of this decline can be traced to overfishing and illegal fishing practices that put unsustainable pressure on marine ecosystems. In 2010, six No Fishing Zones (NFZ)s were declared. In 2012 Mediterranean Conservation Society (MCS) designed community marine guard training and NFZs patrolling scheme to improve effectiveness of protected areas with the cooperation of Coastguard. From January 2015, all the species coming daily to Akyaka fishery cooperative in weight and size have been recorded. In the English Bay NFZ, sightings of the grouper species, increased 40 times in 2015 compared to 2008 data. Sightings of the same species increased eight times within 1 km outside the no-take zone, proving a positive spillover effect from the NFZs into nearby areas over a short period of time. The data clearly verify the white grouper has been showed up again after almost 10 years and started generating an important income for the cooperative. According to the catch records the seasonal catch cycle of white grouper starts up around April, peaks up in August and drops down to the minimum value in January. The local fishing community in Gokova Bay linked the return of white grouper to NFZ and well enforcement implemented.

Keywords:

Epinephelus aeneus, Gökova, Bay, Marine, Protected, Area, white, grouper
