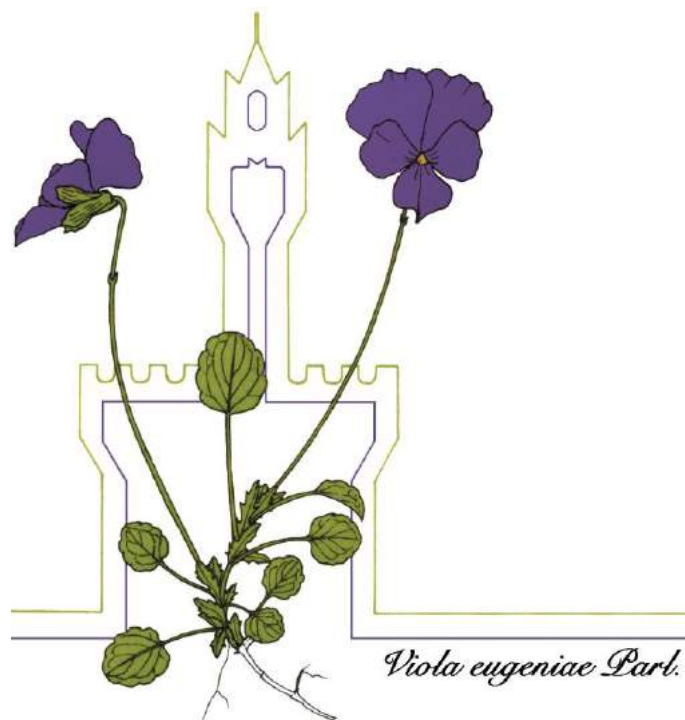


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ABSTRACTS

KEYNOTE LECTURES, COMMUNICATIONS, POSTERS

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Seagrass - waterbirds interactions in a lagoon ecosystem of the northern Adriatic Sea

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The main goal of this work is to understand the interactions between primary producers (plants) and consumers (herbivore birds) for the conservation of ecosystems such as lagoons, in the view of plant-herbivore interactions. We studied the relationships between the abundance of the herbivore bird Eurasian Wigeon (*Anas penelope*) and the distribution of three seagrass species (*Cymodocea nodosa*, *Zoostera marina* and *Nanozostera noltei*) occurring in the Marano and Grado lagoon. This is a large waterbody located in the north part of the Adriatic Sea, in Friuli Venezia Giulia region, Italy (1) and it is morphologically classified as a leaky lagoon (2). Twelve bird monitoring areas were monthly surveyed during three years and seagrass distribution data were collected. The overall number of individuals of *A. penelope* was related to seagrass meadow extension and species cover by using a multiscale approach in four circle buffers (with radius of 500 m, 750 m, 1,000 m and 1,250 m). Among the considered scales, the 500 m radius and 1,250 m radius showed similar statistical scores, having lower performances for all the considered statistical parameters. The 750 m radius scale had the best performances. The total number of Eurasian wigeon individuals was related with area occupied by seagrass meadows and the mean percentage cover of *C. nodosa* and *N. noltei*. In particular, the number of observed individuals of wigeon increased where there was a larger area occupied by seagrasses meadows. Results showed also that when *C. nodosa* mean percentage cover increased the number of wigeon decreased, while if *N. noltei* mean percentage cover increased wigeon number increased. Finally, *Z. marina* showed a not statistically relevant influence in all the tested scales. Our findings confirmed that, in lagoon ecosystems, wigeon wintering populations shows co-occurrence on the abundance of seagrass meadows.

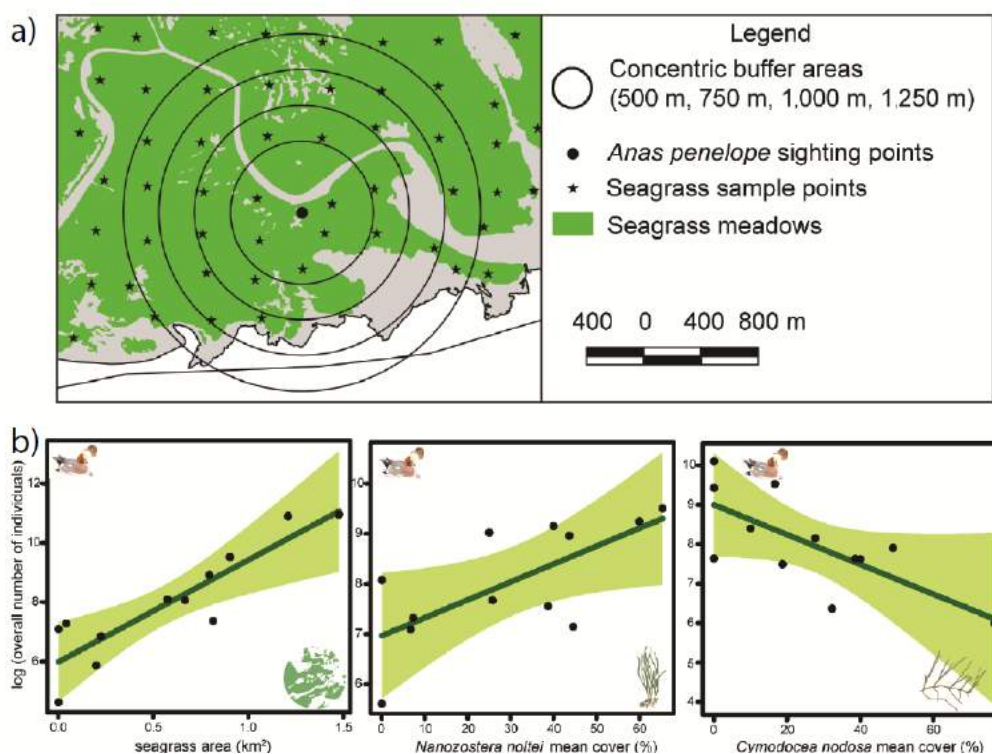


Fig. 1a. Seagrass sample points and concentric buffer areas (site 5), as an example of the multiscale analysis approach. It has been used for each representative point. Fig 1b. Relationship between *Mareca penelope* individuals (with log transformation) and cover of seagrass, *Cymodocea nodosa* and *Nanozostera noltei* in a 750 m buffer area.

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2) B. Kjerfve (1994) Coastal Lagoon Processes. In: B. Kjerfve (ed.) Elsevier Oceanography Series. Elsevier, New York, NY, pp. 1-8

