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**110. Dredged material islands in the Venice Lagoon; effects of site area and extension on breeding species richness and abundance**

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In the Lagoon of Venice, 54 dredge islands have been created so far as a new tool to dispose of sediments dredged from lagoon channels. Most of the islands, ranging in size between 5 and 35 ha, are made of silty-clay sediments, whereas the remaining are mostly sandy. The elevation of the former is below 0.8 m above sea level, which means the islands are flooded during high tides; the sand islands have higher elevation, with most of the surface exposed during high tides. These man made sites are quickly used by birds, some of particular conservation concern; about 70 species of non Passerines were observed at least once between 1993 and 2005, and gulls, waders and herons were the most abundant groups. A detailed survey of breeding species was done in 2005. I tested the hypothesis that species richness was positively related to site age or area. Eleven breeding species were recorded at least once. Ten islands (18.1%) did not host breeding species; the remaining hosted between 1 and 7 species. Age of sites without or with breeders was not statistically different (7.3 ys vs. 7.5 ys;  $p > 0.05$ , ANOVA) whereas area was much smaller ( $4.6 \pm 2.6$  ha vs.  $11.2 \pm 9.9$ ) still at the threshold of significance ( $p = 0.05$ ). Overall, richness of species increased both with age and area of the sites, but only the second correlation was significant ( $p < 0.005$ , ANOVA). Again, number of breeding pairs was positively related to age ( $p < 0.01$ , ANOVA) but not with site extension. Sites were also classified according to their area (<5 ha, 5-10, 11-20, >20); number of breeding species varied among classes, with those larger of 20 ha richer (4.2 species) than the others ( $p < 0.05$ , ANOVA with post-hoc comparisons). In conclusion, larger sites (i.e. more than 20 ha) are more likely to be used by more breeding species than smaller ones; increasing the age of the sites does not lead to rise in the species richness, but increases their abundance.