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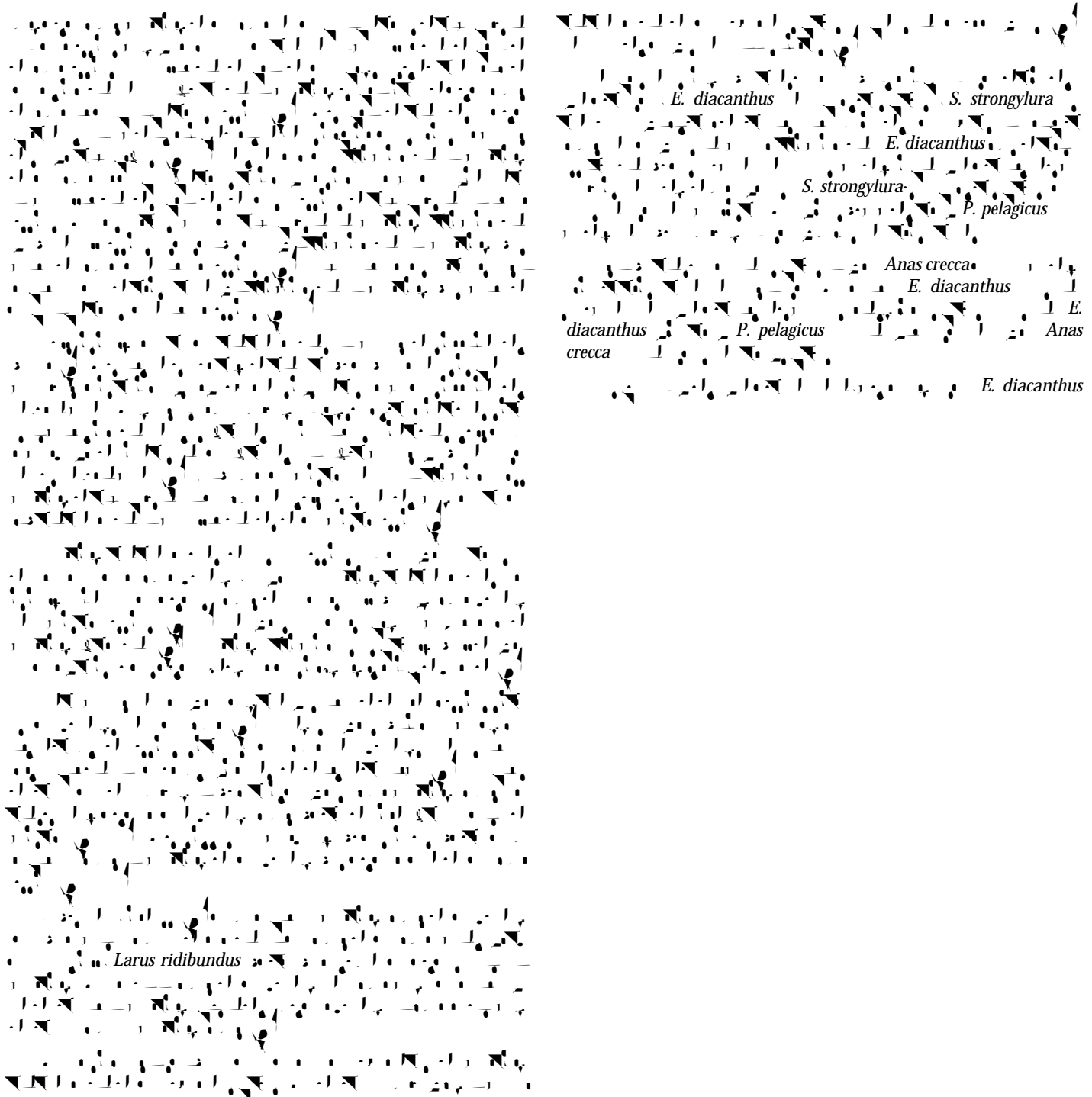
Copyright: © 2014 Hosseini M. This is an open-access article distributed under birds species from Arvand river, located in the Khuzestan province in the lowlands of

Abstract

Materials and Methods

Study area

Introduction



E. diacanthus is benthic species and is more common in the bottom sediment and receive more sediment associated metals. Also, there was significant correlation between mercury concentrations in crab and bird tissues ($r=0.86$, $P<0.001$, Figure 3b). Therefore, this finding could be due to the differences in their ecological niches and feeding habitats. Therefore, *Anas crecca* could be considered as suitable biomonitor agents for mercury contamination in the study area.

Conclusion

Our results indicated that the levels of mercury varied among species and tissues. Mercury can be transferred to higher trophic level by biomagnification. Also, mercury concentrations in high trophic level depend on the organisms of lowest trophic level. Therefore, the results of this study show that highest mean mercury level were found in the bird (*A. crecca*), followed by blue crab (*P. pelagicus*), benthic fish (*E. diacanthus*) and pelagic fish (*S. strongylura*). There was a positive correlation between mercury concentrations in organisms with size of food items. Therefore, we expected to see higher mercury levels in tissues of female species because they are larger and can eat larger food items. The results confirmed that the concentration of mercury in organisms strongly affected by habitat and feeding habit, however, the influences of habitat appears to be more than feeding habit. The

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