

DRAFT

WASH FEASIBILITY STUDY

ECOLOGICAL REPORT

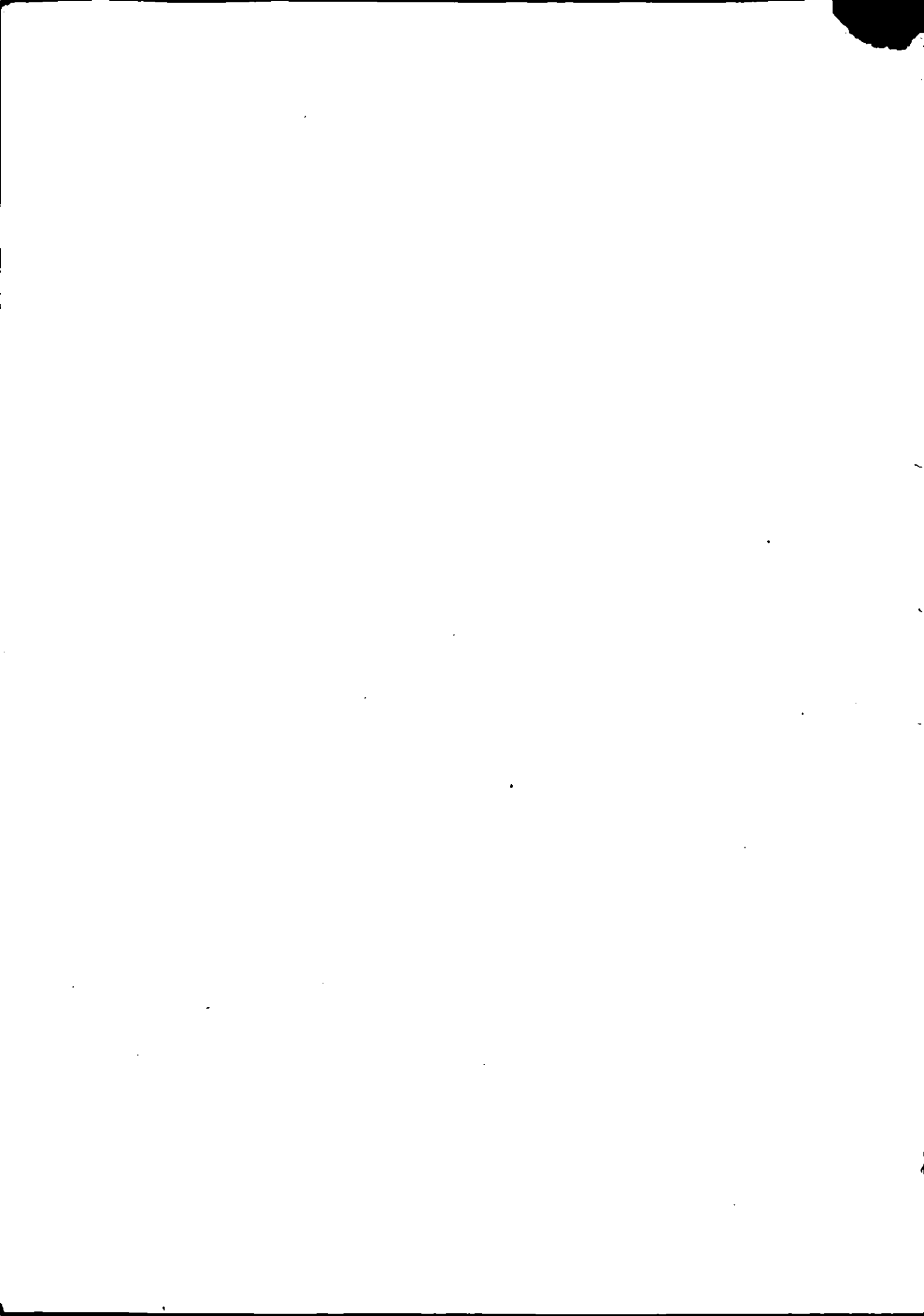
SCIENTIFIC STUDY J

HEAVY METALS IN WADERS

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Few studies have been made of the levels in, and possible effects on, estuarine birds of certain persistent pollutants which, particularly in the most industrialised estuaries are sometimes present in relatively high concentrations (see Ashby 1972). In connection with a geographically wider survey of mercury levels in British estuarine birds, concentrations of total mercury were determined in the livers of 73 waders collected during August-March on the Wash in order to obtain baseline data on levels of this element in birds living in a non-industrial and presumably relatively lightly polluted estuarine area (Parslow 1973). In the knot Calidris canutus mercury levels were relatively low, about 1 ppm dry weight, in early autumn but increased through the winter until, by February-March, they were about 10-20 times higher. On more limited or scattered data, the dunlin Calidris alpina and the redshank Tringa totanus also showed much higher mercury levels in late winter compared with autumn. In contrast, mercury concentrations in the livers of 23 snipe Gallinago gallinago, a freshwater wader shot during the months October to January on the Ouse Washes, about 35 km inland from the Wash, remained low and showed no pattern of increase as the winter progressed. The biological significance of the concentrations found in the Wash waders is uncertain. In collaboration with CERS, further work is in progress to examine mercury levels in the main food source of knot in the Wash, Macoma balthica, both seasonally and geographically, in an attempt to understand the pollutant pathways involved and their primary sources.

References

- Ashby, E. (chairm.) (1972). Royal Commission on Environmental Pollution. Third Report: Pollution in some British Estuaries and Coastal Waters. London, HMSO.
- Parslow, J.L.F. (1973). Mercury in waders from the Wash. Environ. Pollut., 5, 295-304.

