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"Ballast and the Tay Eider Duck Populations"

McManus, John

McManus, John. "Ballast and the Tay Eider Duck Populations." *Environment and History* 5, no. 2 (June, 1999): 237–44. doi:10.3197/096734099779568380 . Deposits of coarse gravels which line the southern margin of the Tay Estuary entrance channel east of Tayport support a thriving population of mussels. Large numbers of Eider ducks, dependent on mussels for food, overwinter in this part of the estuary. The mussels depend on the gravels to provide a firm base on which to grow. The accidental grounding of an oil tanker on the gravel beds led to analysis of the component pebbles, demonstrating that they were unlike gravels from glacial deposits nearby, but closely resembled gravels in the River Tay at Perth, 40km to landward. It is suggested that the gravels which originated at Perth were transported seawards as ballast in lighters seeking to trans-ship cargoes from larger vessels anchored at Tayport which were unable to penetrate the upper estuary due to lack of water. Gravel ballast, required by the empty sailing ships, was unloaded to ballast barges and discharged at the edge of the tidal flats, forming the island of Lucky Scalp. It was spread by salmon fishermen to improve footholds for net hauling. With the improvement of navigation waters to Perth the trans-shipment trade at Tayport ceased. With the demise of the salmon netting industry the gravel banks were abandoned and the mussel beds grew more freely, so that the shell beds increased in area. The presence of the extensive winter Eider duck population in the Tay is at least partly dependent upon the 'waste' products of a human activity that ceased more than a century ago. All rights reserved. © 1999 The White Horse Press

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