

1950. Wigeon were first noticed feeding on germinating winter cereals in the 1963 winter and Pintail on cereals and potatoes in the mid-1960s. This coincides with an increased usage of the Ouse Washes by these species as well as the prolonged freeze-ups in those winters.

During the period of study, continuous freeze-ups were uncommon and usually lasted for less than one week. When they occurred the populations of ducks, except Mallard, Pintail and Wigeon left the Ouse

Washes, presumably for coastal or brackish areas. Although populations of these three species became depressed the majority of birds turned to feeding on waste potatoes and winter wheat leaves.

#### Summary

The paper describes some of the broad features governing habitat usage of wintering ducks at the Ouse Washes, England. They include flooding, disturbance, refuges, climate and availability of food.

G. J. Thomas, Royal Society for the Protection of Birds, The Lodge, Sandy, Beds.

## Responses of wintering Brent Geese to human disturbance

N. W. OWENS

#### Summary

An assessment is given of the effects of human disturbance on the distribution and behaviour of Dark-bellied Brent Geese *Branta bernicla bernicla* wintering in Essex. Disturbed areas and places with poor visibility were avoided in early winter, but were used later when other areas became depleted of

food. Geese became partially habituated to the proximity of people and to some loud noises, but not to small low-flying aircraft. Disturbance could be greatly reduced by restricting access to the sea wall in certain areas around high tide, and by controlling low-flying aircraft.

N. W. Owens, Colney Research Station, I.T.E., Norwich. Present address: 7 Bramston Close, Oundle, Peterborough.

This paper will be published in full in *Wildfowl* 28 (1977).

## The Amey Roadstone—Game Conservancy Wildfowl Project

M. STREET

The object is to discover ways of increasing the breeding success of wildfowl on wetlands created by the gravel industry. Mallard *Anas platyrhynchos* and Tufted Duck *Aythya fuligula* are the important species studied. The main study area is a 300 ha quarry at Great Linford, Bucks, with a 14 ha breeding reserve.

The principal investigation is into the factors affecting juvenile mortality; their food supplies are the subject of intensive study. Correlations are being sought between duckling feeding patterns, survival, and the numbers of hatching insects.

The food of adults has been studied over three shooting seasons. Mallard were dependent to a great extent on cereal grains, Tufted

Duck mainly on aquatic invertebrates, especially molluscs. The study has been extended to investigate the foods of breeding Mallard. Invertebrates, particularly earthworms and Tipulidae larvae, appear to be important foods for both sexes in spring and summer. The birds show a rapid increase in body weight and body fat in autumn and a decline in condition in spring.

The use of different plants for nest sites, escape and feeding cover is being monitored. The success of nests is being related to cover type and position. Artificial nest structures are being tested to determine their effectiveness and acceptability in different position.

M. Street, Great Linford Works, Newport Pagnell, Bucks.