

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD  
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK

1992 CHARTER VESSEL PROGRAMME

REPORT: BALAENA 1/92

STAFF:

D Eaton  
M Easey

DURATION: 19-21 October

LOCATION:

River Medway, Kent

AIMS:

1. To carry out a trawl survey for 0-group bass for comparison with 0-group indices obtained from power station sampling at West Thurrock on the River Thames.
2. To investigate the abundance and population characteristics of the 1989 year class of bass in the Medway area.
3. To tag juvenile bass (30 cm+ total length).

NARRATIVE:

Staff travelled to Queenborough, Isle of Sheppey on the afternoon of 19 October when gear was readied aboard the Balaena. Trawling was undertaken in the Kingsnorth power station hot water discharge creek using the new Solent pattern bass survey trawl over a 4 hour period either side of low water. Trawl catches were supplemented by angling in an attempt to obtain greater numbers of bass of a suitable size for tagging. The survey was completed on the afternoon of 21 October and staff returned to Lowestoft that same day.

RESULTS:

1. Eight tows in the hot water discharge creek yielded 3153 bass of which 97.8% (3084 fish) were 0-groups, the majority of the rest being 1-group fish. The catch rate of 0-groups was 29.4 fish/min. Although previous surveys in the area used different trawls, the catch rate of 0-groups on equivalent surveys in the area since 1988 is shown in the accompanying figure, together with the indices of 0-group abundance derived from screen sampling at West Thurrock. It is hoped that the Medway survey can be standardised and continued in future years to provide a back-up index if West Thurrock ceases operation.
2. Stratified sampling of the catch for age determination produced only four fish from the 1989 year class, the rest being younger. All four 1989 fish were over 30 cm total length (mean 35.0 cm). The size of these fish and the absence of 1989 year class from the catch suggests that the growth rate of this year class is much greater than that observed in other

areas, and it is probable that the bulk of the 1989 cohort had already attained a size (generally 36 cm+) at which they quit the nursery area. Additionally the temperature in the River Medway had fallen to 10° C, unusually cold for the time of year based on previous experience in the area, and this may also have been a stimulus for the larger fish to leave.

3. Because of the paucity of larger fish only four bass were tagged.

D Eaton  
30 October 1992

INITIALLED: GPA

DISTRIBUTION:

Basic List+

D Eaton

M Easey

Mr M Selling, Skipper FV Balaena

The Clerk, Kent and Essex SFC

The Chief Executive, Rochester-upon-Medway City Council

Mr T Whyatt, DISE, Hastings

FLR 7417

0 GROUP BASS YEAR CLASS INDICES DERIVED FROM POWER  
STATION SCREEN SAMPLING AT WEST THURROCK (RIVER  
THAMES) AND TRAWL SURVEYS IN THE RIVER MEDWAY

