

INDEXED
AE

PG

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK NR33 OHT, ENGLAND

1987 RESEARCH VESSEL PROGRAMME

REPORT: Chartered commercial vessels and sampling at Kingsnorth power station, R. Medway.

(Provisional: Not to be quoted without prior reference to the author).

STAFF: D Eaton
G Pickett
C Whiting
S Milligan

DURATION: 29 November - 8 December 1987.

LOCATION: Kingsnorth power station and R. Medway, Kent.

AIMS:

1. To estimate the population of 0 group/juvenile bass in the R. Medway near Kingsnorth power station.
2. To describe the distribution, short term movements and length distributions of 0 group/juvenile bass in the area.
3. Depending upon the results from 1. and 2., to estimate the daily mortality rate of 0 group bass due to entrainment on the cooling-water intake screens at Kingsnorth power station.

NARRATIVE:

DE and GP travelled to Whitstable on 29 November and commenced fishing operations in the Medway aboard the FV MAJARO on the 30th. Adverse weather prevented further fishing from Whitstable and the charter was terminated on 3 December, an alternative vessel, the OSPREY, being chartered from Strood over the period 4-5 December. Cooling water intake screens at Kingsnorth power station were sampled for bass over the period 1-8 December inclusive. Fishing with traps, fyke nets and sweep nets was also carried out in the warm water outfall lagoon and on the foreshore. CW and SM joined the sampling team on 1 December, SM returning to Lowestoft on 4 December and CW on 6 December. DE and GP returned to Lowestoft on 8 December after completion of the initial phase of sampling at Kingsnorth power station.

RESULTS:

8 hauls were completed on the MAJARO using a 2m beam trawl fishing the ebb tide. After initial adjustments to the gear a total of 250 0 group bass in the length range 5.0-10.0cm were caught. Of these, 236 were dye-marked on the left flank using alcion blue dye, and returned alive to the water.

12 stations were completed on the OSPREY yielding a further 93 0 group bass of which 86 were marked and released in a similar fashion to previously.

No bass were caught using fyke or sweep nets but fish traps set in the outfall lagoon caught a total of 61 bass over the period 2-8 December. 24 of these were dye-marked on both flanks and released back into the lagoon. A further 23 were triple marked on the right flank and seeded into the inlet area of the cooling-water intake screens (6 December).

Results of monitoring the entrainment of bass on the cooling-water intake screens were as follows:

24h period	Number of bass	Number of marked bass	Size range (cm)
1-2 Dec	1187	0	6.0-17.5
2-3 Dec	6792	6	5.5-16.5
3-4 Dec	2804	4	Not measured.
4-5 Dec	1620	2	6.0-16.5 (+1 @ 30.5)
5-6 Dec	962	0	Not measured.
6-7 Dec	940	3 (+9 seeded)	6.0-17.5
7-8 Dec	1386	2 (+2 seeded)	Not measured.
Totals:	15691	17 (+11 seeded)	

Further monitoring of the screens will take place throughout December.

D Eaton
15 December 1987

INITIALLED: DJG

DISTRIBUTION:

Basic list + D Eaton
G Pickett
C Whiting
S Milligan
FLR 6020