

2003 CHARTER CRUISE PROGRAMME

REPORT: ANGELLE MARIE 2/2003

(**PROVISIONAL:** not to be quoted without prior reference to the author)

STAFF: M J Brown
R J Taylor

DURATION: 11 – 17 Sep 2003

LOCATION: The Solent, Southampton Water, Chichester and Langstone Harbours

AIMS:

1. To carry out the annual September trawl survey for pre-recruit bass in the Solent area.
2. To determine the relative abundance and distribution of juvenile bass and other species in the Solent and associated harbours.
3. To repeat selected tows at different speeds to compare the effects on size composition of the catch.

NARRATIVE:

Staff travelled to Portsmouth on 10 September and joined the Angelle Marie at Warsash the next day. The survey commenced at 0825 on 11 September, and seven stations outside and one inside Southampton Water were completed that day. The Angelle Marie then moved to Whale Island, Portsmouth in order to fish the tows at the eastern end of the survey area. Over next two days, the tows inside and outside Chichester and Langstone harbour were completed with no problems. On 14 September the tows in Langstone harbour were repeated at a slower towing speed for comparison with the CEFAS Thames bass survey. The Angelle Marie then moved back to Warsash Marina in order to fish the tows at the western end of the survey area. On the 15 September survey tows in Southampton Water were completed. The fifth tow of the day was invalid due to a large lump of peat filling the cod end, but there was no damage to the net and this tow was then repeated successfully. On the following day seven tows in Southampton Water were repeated at the slower towing speed. On the last day the net was replaced with a new one made up this year, and four comparable tows were fished to ensure consistency in future surveys. The fishing gear was unloaded at Warsash Marina, and staff returned to Lowestoft later that day.

RESULTS:

The standard survey comprised 39 valid tows on 35 core stations. (Figure 1). As in previous years some core stations were repeated to ensure fishing over different states of the tide. Twelve additional tows were fished at a slower speed to compare the effects on size composition of the catch (Figure 2). Bass showed a similar size distribution, but generally fewer numbers at the lower speed. In addition, the length distribution of black sea bream has been included to show the effect on smaller fish of a slower tow speed. These tows were not used in working up the numbers and catch rates for the standard survey.

Over the main survey a total of 1179 bass were caught. 772 in the harbours and 407 outside. All tows in the main survey yielded bass.

A total of 457 bass scales were taken and read during the survey, allowing an age length distribution to be produced before returning to the laboratory (Figure 3). 40% of bass caught were 2 year olds (2001 year class), 27% of bass caught were 1 year olds (2002 year class) and 21% of bass caught were 3 year olds (2000 year class), with modal lengths at 23 cm, 17 cm, and 29 cm respectively. 48 (4.1%) of the bass caught were above the minimum landing size (36cm). One 78cm bass was caught in Langstone harbour.

Catch rates of bass averaged 4.24 per minute in the harbours and 2.56 per minute outside (3.46 per minute overall). The overall value is below the mean for the last 10 years, (5.12 per minute) and is also below the mean of the last September survey (4.57 per minute).

A wide variety of other species were caught, notably bib (1793 fish), black sea bream (433 fish), plaice (224 fish), sole (59), red mullet (50 fish), 48 wrasse identified as baillon's wrasse *Symphodus bailloni*. A twaite shad was also caught in Southampton Water.

25 commercial sized bass were tagged and released as part of CEFAS bass tagging programme.

CEFAS would like to thank the skipper and crew of the Angelle Marie for their help in the successful completion of this year's survey.

M J Brown
25 October 2003

INITIALLED: RM

DISTRIBUTION:

Basic list +
B Harley
M J Brown
G D Pickett

Mr D Baldacchino, Skipper FV
Angelle Marie
Mr D Jenkins, FOII Portsmouth
Mr T Dapling, CFO Sussex SFC
Mr M Whiteley, CFO Southern SFC

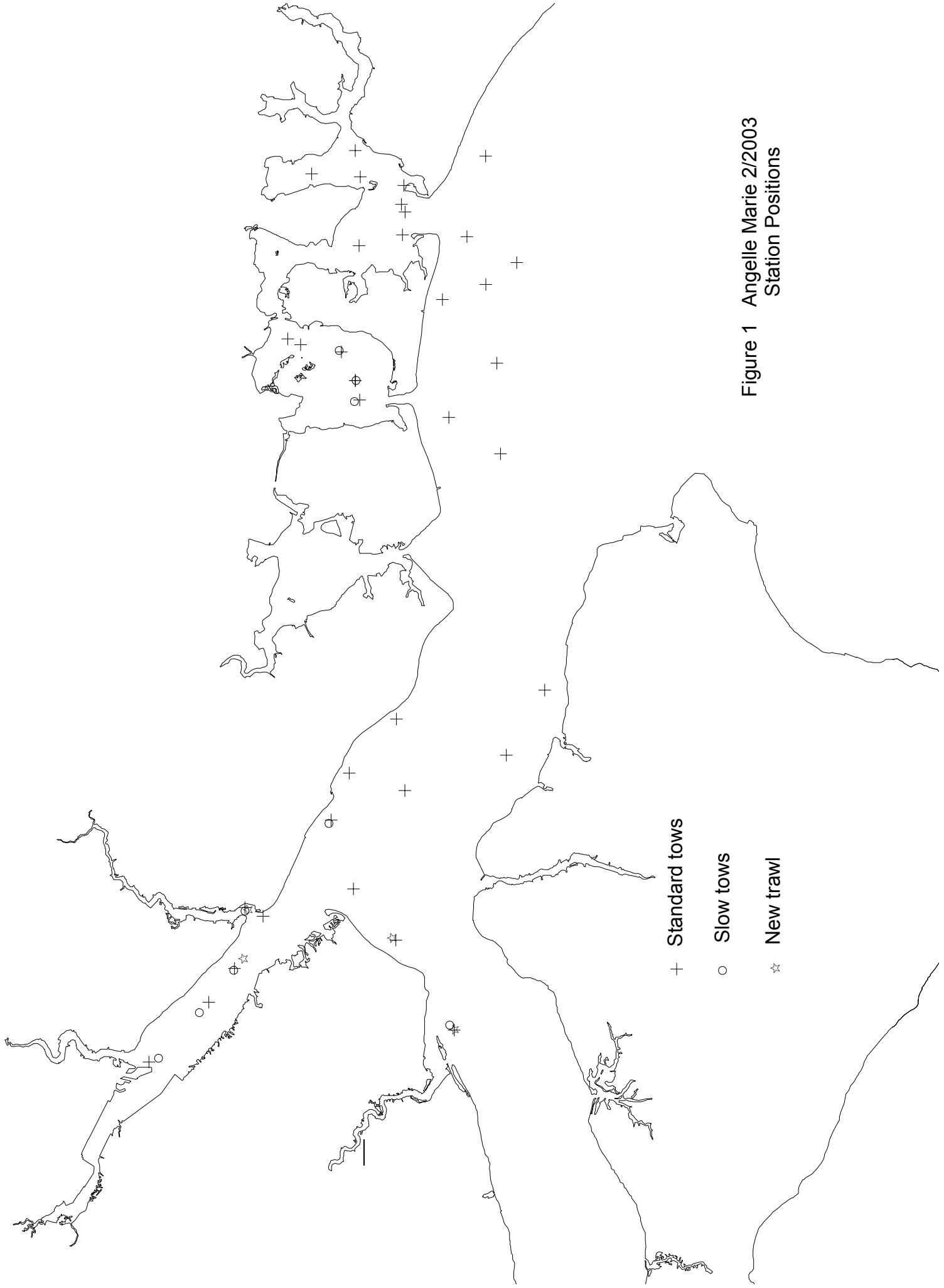


Figure 1 Angelle Marie 2/2003
Station Positions

- + Standard tows
- o Slow tows
- * New trawl

Figure 2. Comparison of a) Bass and b) Black sea bream length frequency distribution at different towing speeds.

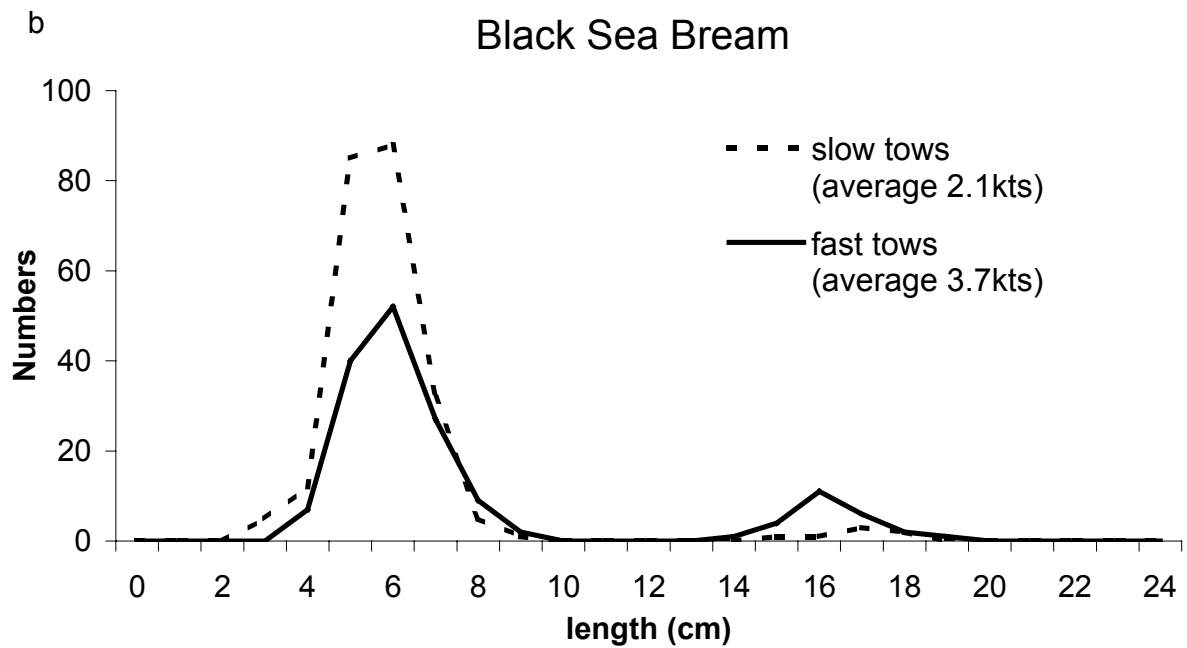
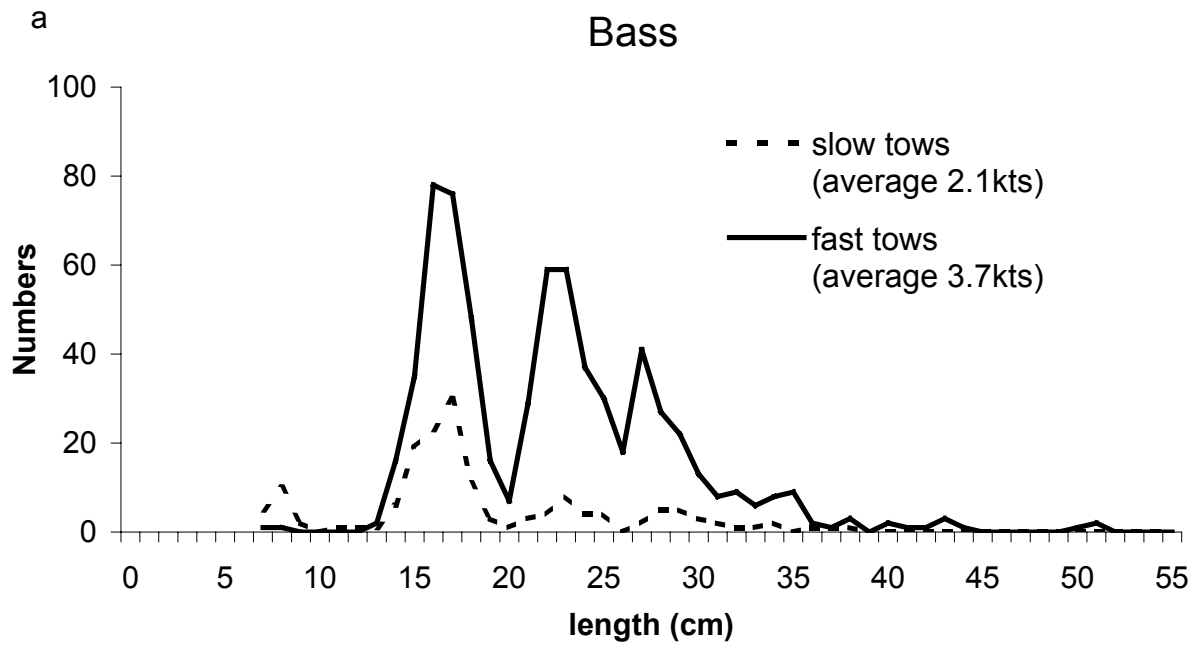


Figure 3. September 2003 Bass length frequency distribution at Age a) Inside harbours, b) Outside harbours.

