

Input data required for updating the Operating Models for West Coast rock lobster

S.J. Johnston

Before the current OMP 2007 re-cast can be updated, the underlying operating models used to test this OMP need to be updated/refined or alternate operating models developed. The data required for this are listed below.

Note that the most recent update of the current operating model was carried out in 2009 (see Johnston and Butterworth 2009) and included data up to 2008¹. Data series need to be expanded to include the 2009 season where possible.

Catch data

These data are required separately for each of the five super-areas.

Commercial catch

The offshore and nearshore components are not distinguished in the current operating models, although assumptions are made about the percentage split between trap and hoopnets.

Period required: 1910-2009

Recreational catch

Various means have been used to estimate this component of the catch since 1960, with telephone surveys providing the more recent estimates. These estimates extend up to 2008 at present.

Period required: 1960-2009

Interim relief catch

Period required: 2007-2009

¹ The convention is that 2008 refers to the 2008/2009 season

Poaching estimates

Estimates are made for each super-area since 1950 and are set constant since 1990.

Period required: 1910-2009

Abundance index Data

Trap CPUE data

Area 1+2: N/A

Area 3+4: 1981-2001

Area 5+6: 1981-1997

Area 7: 1981-2009

Area 8: 1981-2009

Hoopnet CPUE data

Area 1+2: 1976-2009

Area 3+4: 1981-2009

Area 5+6: 1986-2009

Area 7: N/A

Area 8: 1986-2009

FIMS CPUE data

Area 1+2: N/A

Area 3+4: 1992-2009

Area 5+6: 1992-2009

Area 7: 1992-2009

Area 8: 1992-2009

Note that the trap, hoopnet and FIMS CPUE data have been updated to include the 2009 season.

Somatic Growth data

Area 1+2: 1985-2009

Area 3+4: 1967-2009

Area 5+6: 1967-2009

Area 7: 1967-2009

Area 8: 1967-2009

Note that the somatic growth data have been updated to include the 2009 season.

Catch size structure and F% data

Area 1+2: Hoopnet 1985-2009 (have 1985-2007)

Area 3+4: Hoopnet 1976-2009 (have 1976-2008)

Trap 1976-2009 (have 1976-2008)

FIMS 1992-2009 (have 1992-2004)

Area 5+6: Hoopnet 1976-2009 (have 1976-2008)

Trap 1976-2009 (have 1976-2002)

FIMS 1992-2009 (have 1992-2004)

Area 7: Trap 1976-2009 (have 1976-2008)

FIMS 1992-2009 (have 1992-2004)

Area 8: Hoopnet 1982-2009 (have 1982-2008)

Trap 1976-2009 (have 1976-2008)

FIMS 1992-2009 (have 1992-2004)

Note FIMS catch size structure and F% data are only available to the author up to 2004 at this stage.

Comments

1. Discussion is needed over whether the methods currently used to standardise CPUE data, calculate the FIMS abundance index and obtain estimates of somatic growth from tag-recapture data need revision.
2. A list of structural and other assumptions made in the existing operating models will be provided to a subsequent meeting for discussion.

Reference List

Johnston, S.J. and D.S. Butterworth. 2009. 2009 updated stock assessments for West Coast rock lobster. MCM document, MCM/NOV/2009/SWG-WCRL/234.