Supplementary Material

Environmental influences on the larval recruitment dynamics of snapper, Chrysophrys auratus (Sparidae)

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Table S1. Daily means ± S.E., minima and maxima of environmental variables from November 2009 to March 2010 in the Kaipara, Huruhi, Manukau and Mahurangi Harbours, and from November 2010 to March 2011 in the Kaipara and Huruhi Harbours

| | Harbour | Mean ± S.E. | Minimum | Maximum |
|-----------|--|---|---|--|
| 2009/2010 | Kaipara | 19.0 ± 0.1 | 15.8 | 20.6 |
| | Huruhi | 19.1 ± 0.2 | 15.4 | 21.8 |
| | Manukau | 18.7 ± 0.1 | 14.8 | 21.2 |
| | Mahurangi | 19.4 ± 0.2 | 15.6 | 21.9 |
| 2010/2011 | Kaipara | 19.2 ± 0.1 | 15.3 | 21.2 |
| | Huruhi | 19.7 ± 0.2 | 15.5 | 22.3 |
| 2009/2010 | Kaipara | 1.6 ± 0.6 | 0 | 79.9 |
| | Huruhi | 2.7 ± 0.9 | 0 | 121.8 |
| | Manukau | 2.0 ± 0.4 | 0 | 33.3 |
| | Mahurangi | 1.9 ± 0.6 | 0 | 73.0 |
| 2010/2011 | Kaipara | 3.5 ± 1.2 | 0 | 116.2 |
| | Huruhi | 7.0 ± 2.1 | 0 | 219.6 |
| 2009/2010 | Kaipara | 21.8 ± 0.5 | 3.9 | 33.3 |
| | Huruhi | 21.4 ± 0.6 | 3.0 | 35.4 |
| | Manukau | 21.6 ± 0.6 | 3.5 | 34.2 |
| | Mahurangi | 20.3 ± 0.5 | 4.0 | 31.1 |
| 2010/2011 | Kaipara | 21.2 ± 0.6 | 3.8 | 33.9 |
| | 2010/2011 2009/2010 2010/2011 2009/2010 | Huruhi Manukau Mahurangi 2010/2011 Kaipara Huruhi 2009/2010 Kaipara Huruhi Manukau Mahurangi 2010/2011 Kaipara Huruhi 2009/2010 Kaipara Huruhi Manukau Mahurangi Mahurangi | Huruhi 19.1 ± 0.2 Manukau 18.7 ± 0.1 Mahurangi 19.4 ± 0.2 $2010/2011$ Kaipara 19.2 ± 0.1 Huruhi 19.7 ± 0.2 $2009/2010$ Kaipara 1.6 ± 0.6 Huruhi 2.7 ± 0.9 Manukau 2.0 ± 0.4 Mahurangi 1.9 ± 0.6 $2010/2011$ Kaipara 3.5 ± 1.2 Huruhi 7.0 ± 2.1 $2009/2010$ Kaipara 21.8 ± 0.5 Huruhi 21.4 ± 0.6 Manukau 21.6 ± 0.6 Manukau 20.3 ± 0.5 | Huruhi 19.1 ± 0.2 15.4 Manukau 18.7 ± 0.1 14.8 Mahurangi 19.4 ± 0.2 15.6 $2010/2011$ Kaipara 19.2 ± 0.1 15.3 Huruhi 19.7 ± 0.2 15.5 $2009/2010$ Kaipara 1.6 ± 0.6 0 Huruhi 2.7 ± 0.9 0 Manukau 2.0 ± 0.4 0 Mahurangi 1.9 ± 0.6 0 Mahurangi 1.9 ± 0.6 0 0 0 0 Mahurangi 1.9 ± 0.6 0 0 0 0 0 0 0 0 0 0 |

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| | | Huruhi | 21.9 ± 0.7 | 3.0 | 34.9 |
|---------------------------------|-----------|-----------|---------------|-----|------|
| Wind speed (m s ⁻¹) | 2009/2010 | Kaipara | 4.2 ± 0.1 | 0.5 | 13.6 |
| | | Huruhi | 5.6 ± 0.1 | 0.3 | 15.7 |
| | | Manukau | 5.1 ± 0.1 | 0.1 | 12.6 |
| | | Mahurangi | 4.2 ± 0.1 | 0.3 | 12.0 |
| | 2010/2011 | Kaipara | 3.8 ± 0.1 | 0.3 | 19.3 |
| | | Huruhi | 5.3 ± 0.1 | 0.3 | 22.0 |
| | | | | | |

Fig. S1. (A) Thin transverse section of a sagittal otolith from a 49 mm (SL) *C. auratus* showing the position of the SMF zone along which daily increments are counted. (B) High magnification image of the otolith core showing the larval rings and the settlement mark. (C) A saggital otolith from a 5.9 mm (SL) *C. auratus* larva showing 11 daily rings.

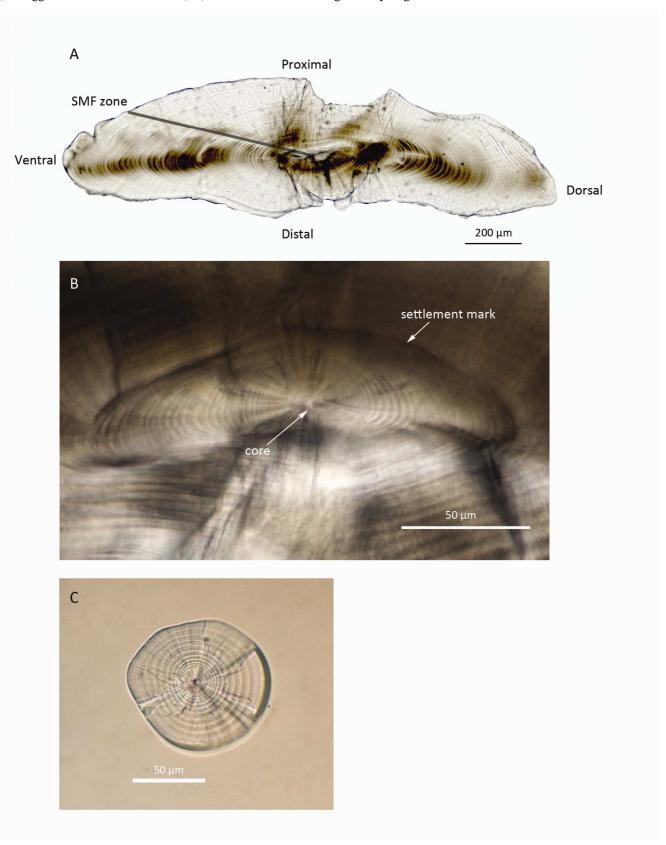


Fig. S2. Daily SST for the Kaipara, Huruhi, Manukau and Mahurangi Harbours between October and March 2009/2010, and for the Kaipara and Huruhi Harbours between October and March 2010/2011.

