Table 1. Jack mackerel sexual maturity by age used in the JJM models.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age (yr) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Far North Stock | 0.00 | 0.37 | 0.98 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Table 2. Growth parameters and natural mortality.

|  |  |  |
| --- | --- | --- |
| Parameter | Far North stock | References |
| *L∞* (cm) (Total length) | 80.77 | Dioses (2013) |
| *k*  | 0.155 | Dioses (2013) |
| *t0* (year) | -0.356 | Dioses (2013) |
| M (year-1) | 0.33 | Pauly (1980) |
| L50 | 26.5 | Perea *et al*. (2013) |

Natural mortality equation

Equation to convert total length to fork length:

TL = 0.514 + 1.091 FL, (Cubillos & Arancibia, 1995)

References

* Cubillos L. & H. Arancibia. 1995. Comparative growth performance of horse mackerel of the genus Trachurus, with emphasis on T. symmetricus murphyi. In: C. Bas, J.J. Castro & J. Ma. Lorenzo (Eds.). International symposium on middle-sized pelagic fish. Scientia Marina 59(3-4):647-652.
* Dioses T. Edad y crecimiento del jurel Trachurus murphyi en el Perú. En: Csirke J., R. Guevara-Carrasco & M. Espino (Eds.). Ecología, pesquería y conservación del jurel (Trachurus murphyi) en el Perú. Rev. peru. biol. número especial 20(1): 045- 052 (Septiembre 2013).
* Perea A., J. Mori, B. Buitrón & J. Sánchez. 2013. Aspectos reproductivos del jurel Trachurus murphyi en el Perú. En: Csirke J., R. Guevara-Carrasco & M. Espino (Eds.). Ecología, pesquería y conservación del jurel (Trachurus murphyi) en el Perú. Rev. peru. biol. número especial 20(1): 029- 034 (Septiembre 2013).
* Pauly, D. 1980. On the interrelationship between natural mortality, growth parameters, and mean environmental temperature in 175 fish stocks. Journal du Conseil- Conseil Internation pour L’Exploration de la Mer 39, 175-192.