

CIESM Congress Session : Fish biology / adults
Moderator : Rainer Froese, GEOMAR, Kiel, Germany

Moderator's Synthesis

In his introduction, the moderator stressed the importance of biological data to estimate "the most important population trait" for conservation and fisheries management, namely the intrinsic rate of population growth (r_{max}). This trait is highly correlated with natural mortality, longevity, somatic growth rate, generation time, and annual fecundity. A new routine in FishBase shows estimates of r_{max} for already 1000 species, with more to come as data are added. This presentation was meant to inspire colleagues to not cease their efforts in estimating and reporting basic life history properties.

The session then continued with altogether 10 short presentations about age, growth, length frequencies, length-weight relations, diet composition, mortality, fecundity, biometrics and identification. The final discussion considered three topics:

- (1) How is r_{max} affected if a species changes sex, e.g. from male to female? In such case, all life history traits have to be taken for the larger and older sex (here: the female) and r_{max} can be expected to be lower because of later female maturation.
- (2) How would such sex change affect the somatic growth curve? We don't know, but since sperms have lower metabolic cost than eggs, producing sperms before eggs should not have too much impact on overall growth.
- (3) Studying adult biology is not rewarding and many international Journals do not accept such papers. Participants replied that knowledge about basic biology remained essential, and the *Journal of Applied Biology* and *Acta Ichthyologica et Piscatoria* explicitly accept such papers as short communications, which are then channeled for encoding in FishBase.

