

DATA NEEDS AND MODELS FOR PRESENTATION OF INFORMATION FOR PRODUCTION MODELS

Information from at least one of the two sources (fishery independent or fishery dependent) is necessary

INFORMATION FROM SURVEYS
 (for non-equilibrium Surplus Production model
 or for a Composite model using Z as an index
 of effort)

(Minimal information needed for each species and area)

Mean annual abundance index (i.e. kg/km² or B) by year
 Size or age structure at sea for each year reconstructed from surveys
 Growth parameters + an estimate of M

example 1: (for each year)			
	1997	1998	>>>>>
AGE or SIZE	numbers	numbers	
0	23434	22334	
1	123456	135656	
2	78719	75800	
3	50100	49200	
4	32100	31700	
5	20407	21000	
6	12912	13500	
7	8396	8400	
8	5290	5285	
9	3000	3105	
K=	0.55	M= 0.4	
Linf=	28.00		
to=	-0.12		

YEAR	ABUND.INDEX
1997	44.5
1998	40
1999	45.2
2000	49
2001	
2002	
2003	
2004	
2005	
2006	
2007	v

or alternatively partially elaborated data:

example 2:			
YEAR	ABUNDANCE INDEX	Z	
1995	44.5	0.53	the method used for the estimation of Z has to be described. It should be advisable to bring the original data used for computations
1996	40.2	0.45	
1997	45.2	0.43	
1998	49.8	0.42	
1999			
2000			
2001			
2002			
2003			
2004			
2005			
2006			
2007			
	v	v	

(in this case growth parameters are not necessary but only an estimate of M)

INFORMATION FROM COMMERCIAL CATCH
 (for non-equilibrium surplus production models using
 commercial catch and effort) Minimal information needed
 for each species and area.

example 3:

YEAR	CATCH	EFFORT*
1995	234500	35600
1996	228900	34000
1997		
1998		
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008	v	v

*Only the effort directed to the species in question has to be considered
 (some available fishery independent index of abundance can be
 potentially useful in order to improve the quality of results) :

complementary information from surveys (if available)

YEAR	ABUNDANCE INDEX
1995	44.5
1996	40
1997	45.2
1998	49
1999	
2000	
2001	
2002	
2003	
2004	
2005	
2006	
2007	
	v

Any other available information on fleets, gears used, target species, biological aspects of the single species, spatial distribution, selectivity of gears, species behaviour, changes in catches along the year, changes in target or on fishing strategy along time, etc. may be useful for an improvement of the study and for a critical analysis of results. For this reason, participants are invited to bring as major information as possible.