

**Ad-hoc on the Field Training Course on Otolith/Spines sectioning and Age reading**  
**Piraeus, Greece, 19-23 July 2010**

Tentative agenda and time table

**1<sup>st</sup> day**

Monday 19 July, 9:00-17:00 :

1. Introduction to the equipments used for the otolith/spines sectioning
2. Preparation of non transparent (black) resin blocks with embedded otoliths/spines  
*The blocks should be remained until dry for two days*
3. Introduction to the use of Image Analysis System

**1<sup>st</sup> coffee break: 11:00 am (15 min)**

**Lunch: 13:30 (half an hour)**

**2<sup>nd</sup> coffee break: 15:30 (15 min)**

**2<sup>nd</sup> day**

Tuesday 20 July, 9:00-17:00

4. Introduction to the otolith use for age reading (otoliths structure, otolith preservation and observation, sectioning, true annuli/pseudo-annuli, annuli measurement)
5. Principles of age validation (length frequency, marginal increment)
6. Information on *Spicara smaris* biology
7. Otolith observation and annuli measurement by the use of Image Analysis System of *Spicara smaris* otoliths
8. Construction of marginal increments charts
9. Age assignment to age groups – age length key
10. Estimation of growth parameters

**1<sup>st</sup> coffee break: 11:00 am (15 min)**

**Lunch: 13:30 (half an hour)**

**2<sup>nd</sup> coffee break: 15:30 (15 min)**

3<sup>rd</sup> day

11. Sectioning the embedded blocks of otoliths/spines (done on the 1<sup>st</sup> day) for getting thin sections
12. Smoothing sections surfaces
13. Mounting the thin sections with transparent resin  
*The mounted sections should be kept until dry for one day*

**1<sup>st</sup> coffee break: 11:00 am (15 min)**

**Lunch: 13:30 (half an hour)**

**2<sup>nd</sup> coffee break: 15:30 (15 min)**

4<sup>th</sup> day

14. Information of the *Mullus barbatus* biology
15. Otolith observation and annuli measurement by the use of Image Analysis System of *Mullus barbatus* otoliths
16. Construction of marginal increments charts
17. Age assignment to age groups – age length key
18. Estimation of growth parameters

**1<sup>st</sup> coffee break: 11:00 am (15 min)**

**Lunch: 13:30 (half an hour)**

**2<sup>nd</sup> coffee break: 15:30 (15 min)**

5<sup>th</sup> day

19. Observation of otoliths/spines sections
20. Annuli measurements in otolith/spines sections by the use of Image Analysis System

**1<sup>st</sup> coffee break: 11:00 am (15 min)**

**Lunch: 13:30 (half an hour)**

**2<sup>nd</sup> coffee break: 15:30 (15 min)**