

Fisheries science demonstrates that elasmobranchs are highly vulnerable to depletion by fisheries and slow to recover from such depletion. There is international agreement that applying the precautionary approach to fisheries management in general and elasmobranch fisheries in particular should be given high priority. Stock assessments and CPUE data clearly indicate that some European species, including regional endemics, are seriously depleted. Regardless, the EU has still not adopted sufficient fisheries management measures to address these issues and/or to reverse these trends. There is limited monitoring, control and surveillance activity focused on elasmobranchs in EU waters and compliance with the requirement to record catches (whether retained or discarded) is almost non-existent. Nevertheless, imperfect data should not be used to justify inaction by policy-makers or managers and elasmobranchs are a perfect example of the need to apply a precautionary approach to management. It is suggested that biodiversity instruments, such as CITES, could be important complementary tools for the conservation, management and recovery of elasmobranch stocks.

Keywords: Elasmobranchs, precautionary approach, CITES.

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### ICES CM 2005/N:09

#### Size, age and sexual maturity of blue shark, *Prionace glauca*, in the Mediterranean Sea

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Blue sharks, ranged from 70 to 359 cm in total length (TL), were sampled from the swordfish and tuna fishery in the Mediterranean Sea during the four-year period 1998–2002. Males were predominant (60.1% male, 39.9% female) and sex ratio showed an increase of the males as size progresses. Gonad observation revealed that females smaller than 120 cm TL had immature ovaries with invisible oocytes while ovaries with visible yolked oocytes were present in specimens larger than 120 cm TL. Ovary weight varied from 4 to 137 g and maximum oocyte diameter was 21.1 mm in mature females. All males smaller than 125 cm TL were immature presenting not calcified claspers that did not reach the posterior end of the pelvic fins. Males larger than 187 cm were all mature presenting heavy calcified claspers, which extended much more than the posterior end of the pelvic fins. Total length at first maturity was estimated at 210 cm in females and 190 cm in males. Caudal vertebrae were collected from specimens between 84 and 306 cm TL and vertebral ring counts were used to estimate age. Age estimates ranged from 0<sup>+</sup> to 8<sup>+</sup> years and age at first maturity was estimated about 4 years.

Keywords: blue shark, size distribution, age, sexual maturity, Mediterranean Sea.

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### ICES CM 2005/N:10 - Withdrawn

#### Age and growth of the northeast Atlantic stock of *Squalus acanthias*

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It is considered that a unitary stock of *Squalus acanthias*, the spurdog, resides in the northeast Atlantic. This stock has been subjected to heavy fishing pressure in various parts of its range, notably in Norway, Scotland and Ireland. Preliminary estimates of stock status suggest that the stock is now depleted. This small pelagic shark is one of the few elasmobranchs for which a validated ageing technique is available. This technique was applied to the NEA stock, based on sampling from Irish commercial trawl fisheries and research surveys (2002–2004). The age range encountered in the NEA stock was 0 to 32 years. It is clear that this is a slow growing stock with limited ability to withstand heavy fishing pressure. The results of these age estimates are presented in the light of other studies of age and growth of squalid sharks. Implications for sustainable exploitation of this and other squalid shark stocks are discussed.

Keywords: *Squalus acanthias*, age, growth, spurdog.