Atlantic cod (*Gadus morhua*) ovaries at different stages of sexual maturity; Immature (A), Maturing (early; B, late; C), Mature (D) and Spent (E). The immature ovary has small blood vessels, little tissue texture and transparent or pale orange color. During maturation and vitellogensis, the tissue become more dense and pinker in color, with opaque oocytes clearly visible. Vascular tissue increases. In the fully mature gonad, translucent hydrated and/or ovulating oocytes are present. The spent ovary is flaccid, contains no hydrated eggs and have thickened ovarian walls. The blood vessels are still large. As the size of maturing and spent ovaries can be similar, staging should not be based on the gonadosomatic index alone. For detailed staging of maturing oocytes, histological examination is the most accurate.