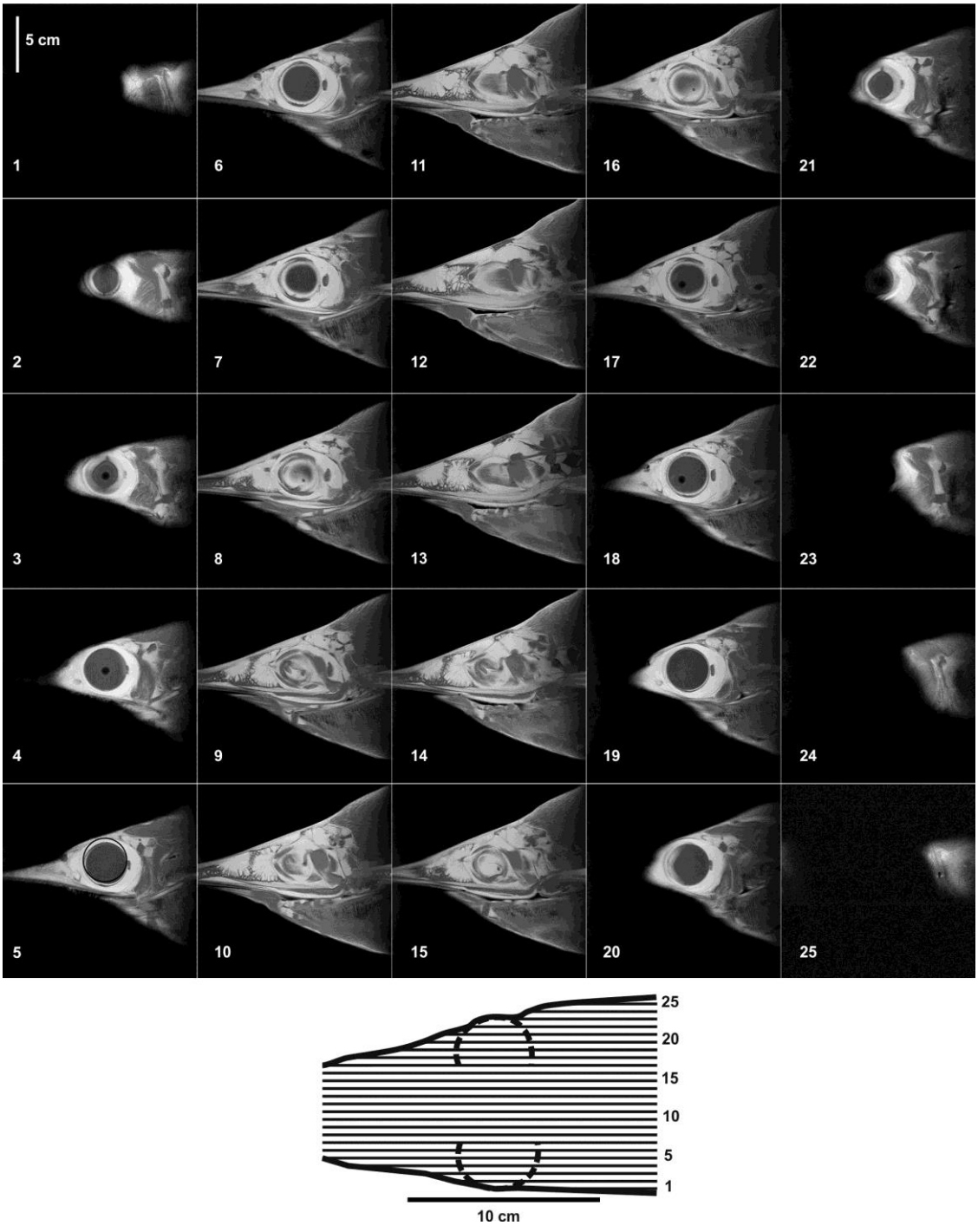

Fig. S1. Sagittal MRI sections, taken 4 mm apart, of a 174 mm long section of a 1.56 m long swordfish. The line drawing indicates the position of each picture in dorsal view. The head of the fish was tilted 2 degrees to the left causing the slight asymmetry of the pictures from left to right. The centremost picture 13 was used in Fig. 1.

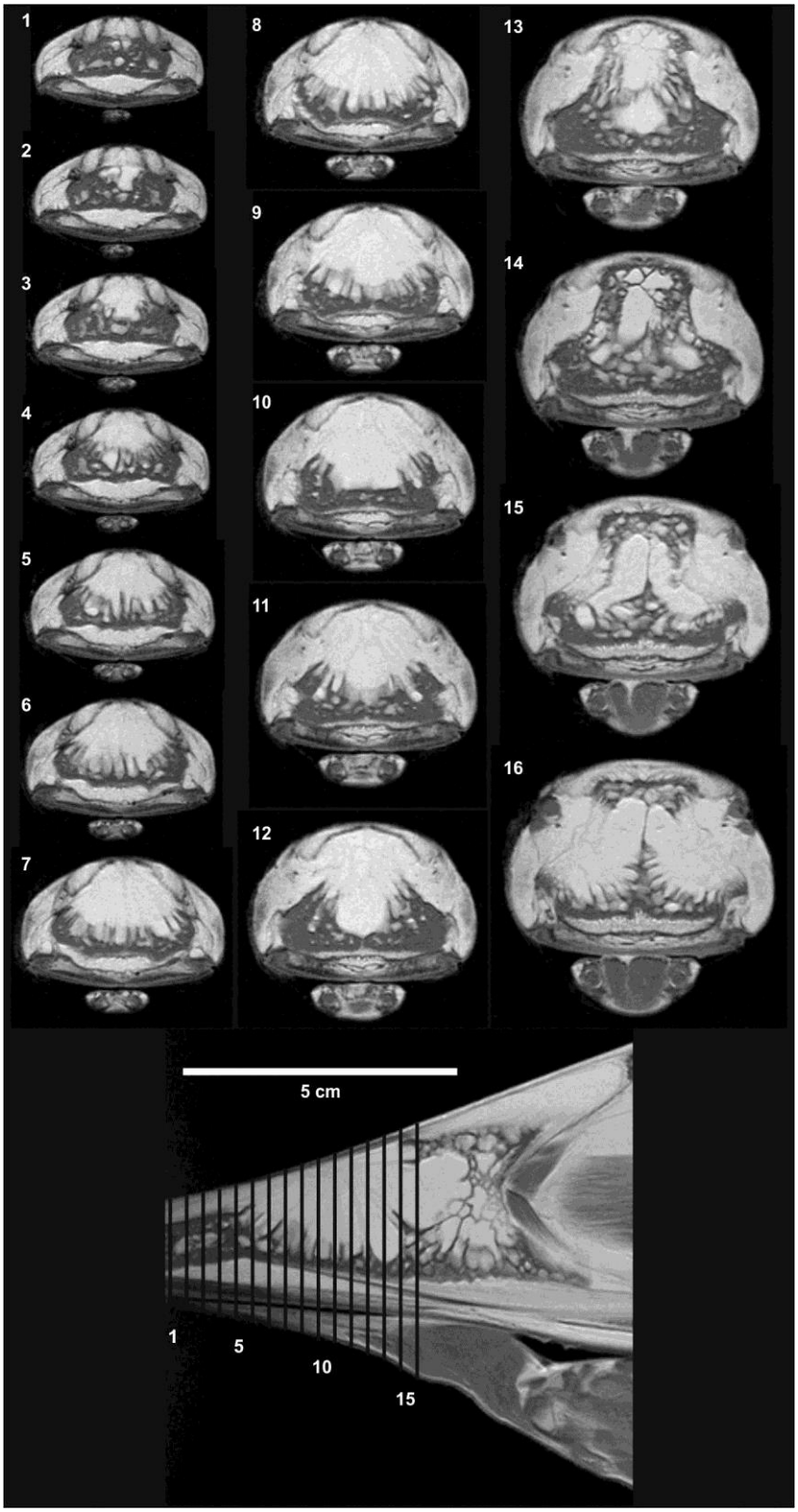

Fig. S2. The 16 anterior-most MRI cross sections, 3 mm apart through the head of a swordfish shown in Fig. S1. The exact position of each picture is indicated on a sagittal section in the figure below.

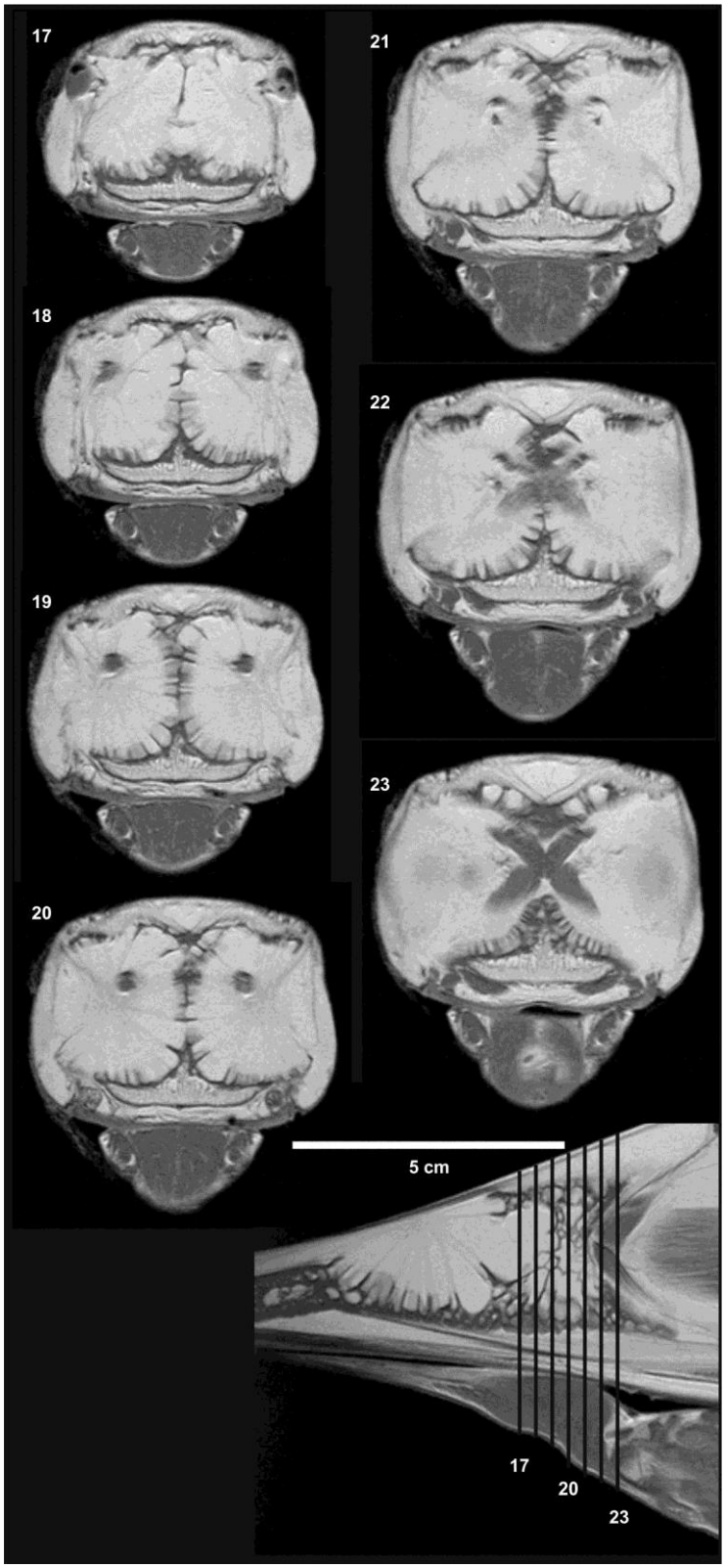

Fig. S3. Cross sections 17 to 23, 3 mm apart through the head of a swordfish shown in Fig. S1. The exact position of each picture is indicated on a sagittal section in the figure below.

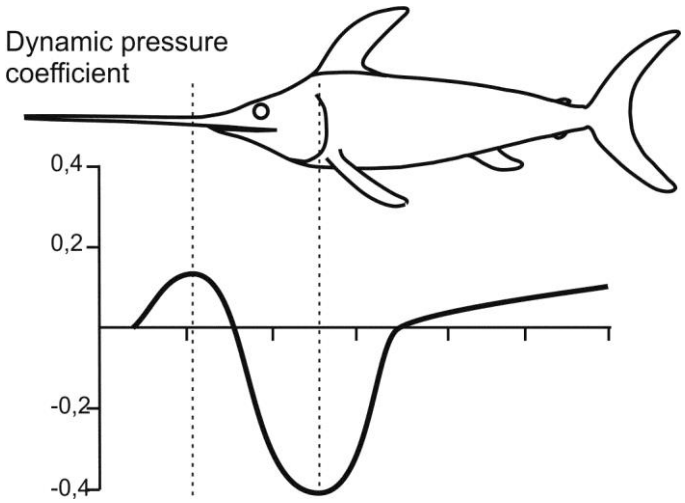

Fig. S4. The distribution of the dynamic pressure coefficient along the dorsal midline of a 65 cm long wood model of a swordfish tested in a water tunnel. The dynamic pressure coefficient equals: $[2(p–p_0)]/(\rho V^2)$, where p is the pressure at the point of investigation, p_0 is the static pressure in the free stream, ρ is the water density and V the velocity of the free stream of 6 m s^{-1} (Aleyev, 1977).