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Cover legend: The photo shows the head of a specimen of the Elephant-nose fish (Gnathonemus petersii), an African Mormyrid protruding from the foliage of water plants. As an adaptation to turbid water and nocturnal lifestyle, these weakly electric fish developed an active electric sense to sense their surroundings and communicate with other individuals. They actively generate an electric field of a few mV around their body which is perturbed by objects in the vicinity that differ in their conductivity from that of the water. Such perturbations are sensed with an array of electroreceptor distributed over their skin. The head and the characteristic and movable chin appendix is densely covered with electroreceptors and constitutes an electrosensory fovea. To learn how these fish shape re-afferent sensory input and use the resultant electrosensory flow for depth perception, see article by Hofmann et al. (pages 302-312).

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