

Do mudskippers tell their right from left?

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In natural environment, animals can determine which way to go. Their decision is, however, likely to be determined by external sensory cues and it is not explicit whether they are conscious of their right and left. Mudskippers live in tidal region. They can stay out of water for a long time and prefer brackish water (BW) over fresh water (FW). We utilized this nature and designed a task to see whether mudskipper can discriminate their right from left. We prepared a tank having three holes at the bottom. Two of them contained dishes filled with FW and BW, respectively. Another one was the entrance through which a mudskipper was introduced into the tank. In a session, a mudskipper was free to move around in the tank for 30 min. We trained the animals by six sessions, after which most of them visited the BW-filled dish more frequently. When the mudskipper was introduced into the same tank with empty dishes, most mudskippers still visited the dish which had been filled with BW. The results suggest that the mudskipper can remember the position of the dish without obvious sensory cues, and that they may be conscious of their right and left.