Baby seals that practice in pools make better divers

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The seals often use freshwater puddles while learning to hold their breath. Credit: Kimberley Bennett

Being able to dive is what matters most for seal pups, but how do they learn to do it? Grey seal pups that can play in pools may have better

diving skills once they make the move to the sea, and this could increase their chance of survival. Researchers at Plymouth University have found that spending time in pools of water helps seal pups hold their breath for longer.

Many seal species stay on land after they have weaned before they go to sea to feed for the first time. "It is during this period of fasting that access to water can make a difference to diving ability," says Dr Kimberley Bennett, one of the researchers behind the study.

The researchers recorded breathing patterns in five grey seal pups with free access to a small, shallow pool. "Periods of breath holding, called apnoeas, were longer and happened more often in pups that chose to be in the water," says Bennett.

It is not yet clear why seal pups that go into the water do better: "Pups that put their head in the water may experience stimulation of the facial nerves, which causes a drop in heart rate. That may help them hold their breath for longer."

The next steps of this research involve looking at exactly how periods of apnoea are related to changes in heart rate in the seals to better understand the development of diving ability in these important marine predators.

More information: This work will be presented by Darcy E. Philpott (Plymouth University, United Kingdom) at the annual meeting of the Society for Experimental Biology (SEB) on Thursday 2nd July.

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