

Sustaining oyster farming with sturdier rafts

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Researchers propose using this affordable, sturdier raft than conventional rafts made from bamboo. Credit: Osaka Metropolitan University

Amid the rising human population and pressure on food supplies, the world can't be everyone's oyster. But perhaps there might be more

oysters to eat if an Osaka Metropolitan University-led research team's findings mean sturdy plastic rafts will be used in their farming.

Conventional [oyster](#) farming uses bamboo rafts with additional flotation devices such as Styrofoam. Though relatively affordable, these rafts can be damaged in typhoons. The OMU-led researchers propose a polyethylene raft that keeps costs manageable but is about five times more durable than a bamboo raft.

The findings were published in [Ocean Engineering](#).

OMU Graduate School of Engineering Associate Professor Yasunori Nihei led the team in running the numerical analysis and verifying the performance by building a test model of the polyethylene [raft](#).

"The numerical analysis technique developed in this research is expected to be applicable not only to oysters, but also to the performance evaluation of aquaculture ponds," Professor Nihei said. "We hope our efforts will contribute greatly to the future growth of the aquaculture industry."

More information: Hiroki Tamura et al, Motion characteristics and deformation performance of highly flexible polyethylene rafts for oyster farming, *Ocean Engineering* (2024). [DOI: 10.1016/j.oceaneng.2024.118537](#)

Provided by Osaka Metropolitan University

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