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Internationa l lega l protection proposed

for An tar ctica’s carbon reduction role

International legal agreements could be used to protect Antarctica’s increasingly

important role in carbon sequestration, according to a new IMAS-led study.

As Antarctic ice shelves, glaciers and sea - ice shrink due to climate change, algal

blooms of phytoplankton thrive in the newly ice -free waters of the continental

shelf, locking away CO2 as they die and sink through the water column.

Known as Antarctic b lue carbon, the world’s largest increasing natural form of

carbon storage contrasts with shrinking mangrove and seagrass habitats in

w arm er parts of the world, which remove CO2 more effectively, bu t on a much

sm alle r scale.

A new paper led by IM AS’s Dr Narissa Bax, publ ished in the j ournal Global Change

Biology, proposes a proce ss linking the 201 5 P aris Agreem ent with the Antarctic

Treaty System to safeguard the continent’s blue carbon contribution.

“It is ironic that Antarctic ice - loss is potentially leading to part of the solution to

clim ate change, which is causing the ice- loss in the first place, ” Dr Bax said.

“We propose that strong protection is required for the rich and productive

biodiversity around Antarctic continental shelves, not just for what it is – a

significant natural mitigation of climate change – but also for its massive potential

as this role expan ds and rises in value in future.

“Actively rem oving CO2 from the atmosphere is required to meet global targets

limiting climate change, as simply cutting emissions is not enough.

“Attem pts to industrially sequester CO2 are so far expensive and small -scale,

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“P rotecting Antarctic carbon sequestration is an im portant chal lenge which has

largely been ignored in international agreements.

“Managing Antarctic waters requires often lengthy negotiation of collective

agreement from fishing states under the Commission for the Conservation of

Antarctic Marine Living Resources (CCAMLR), based in Hobart,” Dr Bax said.

Co- au thor Associate Professor Jeffrey McGee said existing inte rnational