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Seabird establishment in the Falklands triggered an ecosystem state shift 5000 years ago

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SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

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The coastal tussac (*Poa flabellata*) grasslands of the Falkland Islands are a critical seabird breeding habitat, but have been drastically reduced by grazing and erosion. Meanwhile, the sensitivity of seabirds and tussac to climate change is unknown, due to a lack of long-term records in the South Atlantic. Our 14,000-year multi-proxy record reveals an ecosystem state shift following seabird establishment 5,000 years ago, as marine-derived nutrients from guano facilitated tussac establishment, peat productivity, and increased fire. Seabird arrival coincided with regional cooling, suggesting the Falkland Islands are a cold-climate refugium. Conservation efforts focusing on tussac restoration should include this terrestrial-marine linkage, though a warming Southern Ocean calls into question the long-term viability of the Falkland Islands as habitat for low-latitude seabirds.

THURSDAY, NOVEMBER 5, 2020

Time: 4:10 - 5:30 p.m.

Join via Zoom: https://osu.zoom.us/j/99855635988?pwd=dFlYYjFQV1lxL01jaFJoRkFIdWFyUT09

Dial in: +1 301 715 8592
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