**Intro for episode page:** Landsat’s deep archive can reveal where coastlines are changing, even for an entire continent, especially with some clever coding to make it useful to researchers.

***ADD LINK:*** Download and Transcript Access

**Eyes on Earth Episode 121 – Mapping the Australia Coastline**

**Summary**: This episode of Eyes on Earth is the second in a series about how Landsat is helping researchers study coastal changes. The first one was about mapping changes to beaches in California and using Landsat to create models to predict how the coastline may change in the future because of sea level rise and coastal erosion. For this episode, we talk with Robbi Bishop-Taylor, coastal Earth observation scientist at Geoscience Australia, about how he takes advantage of one of Landsat’s best features—time. Using Landsat data back to the 1980s and Open Data Cube to make the dataset openly available, researchers can see where shorelines are eroding and where they are growing around the entire coastline of Australia. Using sub-pixel mapping, they can make Landsat’s 30-meter pixels even more detailed while taking advantage of Landsat’s long archive.

**Guests**: Robbi Bishop-Taylor, Geoscience Australia

**Host**: Tom Adamson (contractor for USGS EROS)

**Producer**: Tom Adamson (contractor for USGS EROS)

**Release date**: Monday, July 29, 2024

**More about Coastal Mapping in Australia**:

* [Open Data Cube](https://www.ga.gov.au/scientific-topics/dea/about/open-data-cube)
* [Published paper](https://doi.org/10.1016/j.rse.2021.112734)
* [Geoscience Australia](https://www.ga.gov.au/)

**Related Episodes:**

* [Episode 120: Mapping the California Coastline](https://www.usgs.gov/centers/eros/science/eyes-earth-episode-120-mapping-california-coastline)
* [Episode 25: Rising Seas](https://www.usgs.gov/centers/eros/eyes-earth-episode-25-rising-seas)
* [Episode 16: Predictive Modeling](https://www.usgs.gov/centers/eros/eyes-earth-episode-16-predictive-modeling)

**Keywords**: Earth Resources Observation and Science (EROS) Center, Eyes on Earth, Landsat, Australia, coastlines, Geoscience Australia, tides, Open Data Cube

**Thumbnail image:** <https://cms.usgs.gov/media/images/thumbnail-image-eone-episode-121-mapping-australia-coastline>

**Homepage image:** <https://cms.usgs.gov/media/images/homepage-image-eone-episode-121-mapping-australia-coastline>

**Homepage descriptor**: This episode of our remote sensing podcast describes how Landsat is used to map shoreline changes for the entire coastline of Australia.

**Topics this could go in:** Data, Land Change, Landsat, Remote Sensing, Water

**CMS of web page:** <https://cms.usgs.gov/centers/eros/science/eyes-earth-episode-121-mapping-australia-coastline>