

Review – ESSD, Coastal Complexity of Antarctica
R. Porter-Smith et al.

L15 no comma needed between ‘novel technique’

L22 suggest ending the sentence at ‘...biological studies’. The last part has a circular reasoning tone to it.

L30 change to ‘...of terrestrial land areas.’

L37 is it really more challenging to quantify? Is it not just a mathematical analysis no matter the shape, or pace of change? Is change in the coastline over time considered somehow?

L40 I don’t think the case for the importance of coastal complexity has really be made at this point in the text. Suggest moving this sentence to lead-off the paragraph that begins on Line 70.

L54 suggest ‘...and has a major impact on logistical operations, e.g., station resupply.’

L79 I think the text flow would be better if you moved this paragraph up one step and then combined the one above it and the one below it as the last statement before launching into the study.

L183-187 An interesting observation. I think the western-bias in West Antarctica may be an indirect function of climate and winds: much of the 0-60°W coastline (in your broad use of the word) is an ice shelf margin; but in the 60 – 180°W region, warmer conditions along the western Peninsula mean a more fjord-like coast, greater coastal complexity, and a strong westward orientation of both bays and peninsulas. On the Amundsen coast, there is a strong easterly prevailing wind direction, which may influence calving and ice shelf structure. It would be a nice connection to the physical world to discuss the broad trends in this way (I’m not saying that my speculation is correct, but I think there is a physical / climate link to these obs of East and West Antarctica’s coast).

L218 – change ‘carve’ to ‘calve’

L233-234 Would it be useful / illuminating to include a third enlargement, perhaps of some part of the Peninsula? (I’m thinking southwest area or northern half on both sides).

Figure 6: I can’t detect a difference between the left and the right diagram – ah, ok a very slight change in the red-blue boundary area.... But is this worth a separate figure? problem there?

Figure 11: change to ‘Enlargement of the western Ross Sea coastal area...’