



## **Oroclinal bending in the New England Orogen, eastern Australia**

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The Tasmanides of eastern Australia are characterized by a series of oroclinal structures, and understanding their geometry, kinematics and geodynamic evolution are crucial for tectonic reconstructions. Here we present recent results that shed light on oroclinal bending in the New England Orogen (the easternmost segment of the Tasmanides). Based on our data, we show that the oroclinal structure involves four curvatures, which can be delineated by stratigraphic, structural, and lithological markers. The development of the oroclines is supported by available paleomagnetic data, although there are still major uncertainties with regards to the magnitude and timing of block rotations. We argue that the major phase of oroclinal bending took place in the Early Permian in response to the eastward retreat of the subduction system. The coeval arc during oroclinal bending may have existed offshore the present-day coast of eastern Australia, and is possibly preserved in the Gympie terrane.