

SUPPLEMENTARY MATERIAL TO:

A strontium isoscape of inland southeastern Australia

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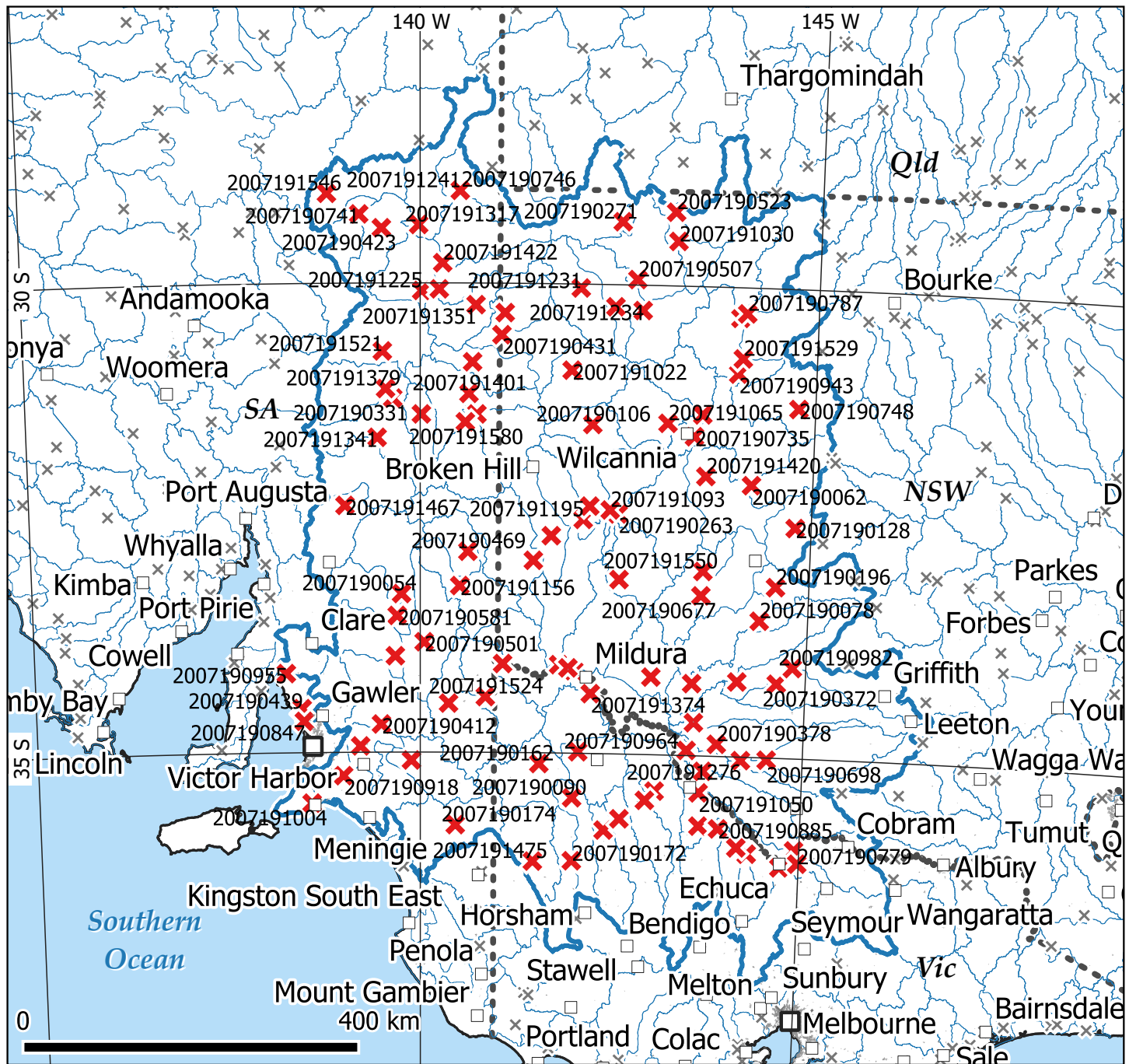
1 Introduction

This Supplementary Material file contains several additional high-resolution maps to assist the reader of the main article:

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- Figure SM1: Sample identification
 - Figure SM2: Physiographic regions
 - Figure SM3: Hydrology, northern DCD
 - Figure SM4: Hydrology, southern DCD

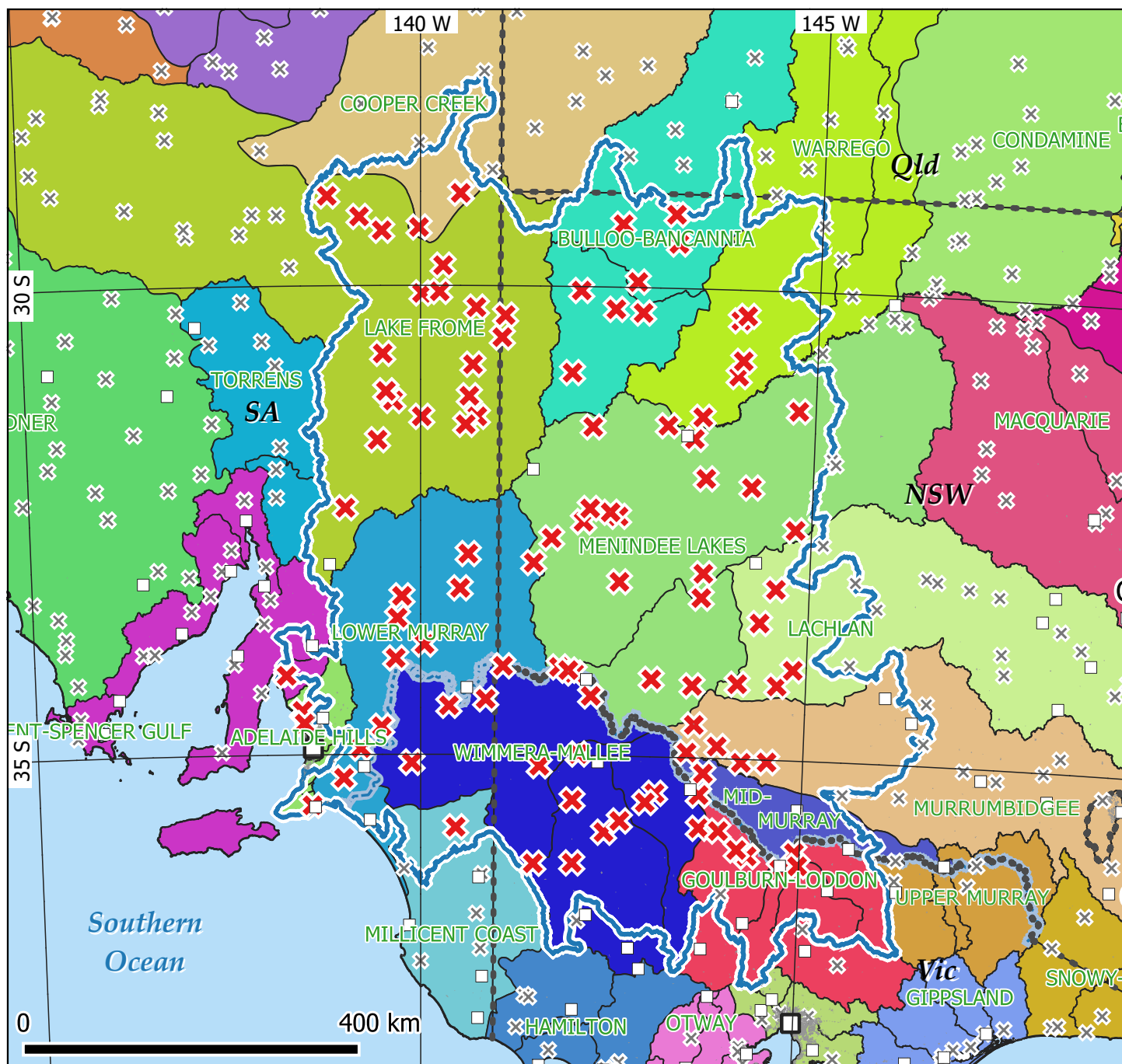
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Figure SM1 (next page): The Darling-Curnamona-Delamerian (DCD) Sr isotope study area (dark blue outline) and National Geochemical Survey of Australia (NGSA) sample locations outside the DCD area (grey crosses) and inside the DCD area (bold red crosses), the latter identified by 10-digit sample identification code. NGSA catchement outlines are shown as thin blue lines, whilst towns and state capital cities (labelled) are indicated as white squares, and state borders as thick dotted lines.



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|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| DCD Study Area | Habitation |
| X NGS Site (DCD) | Capital |
| x NGS Site (Other) | Town |
| NGS Catchment | |

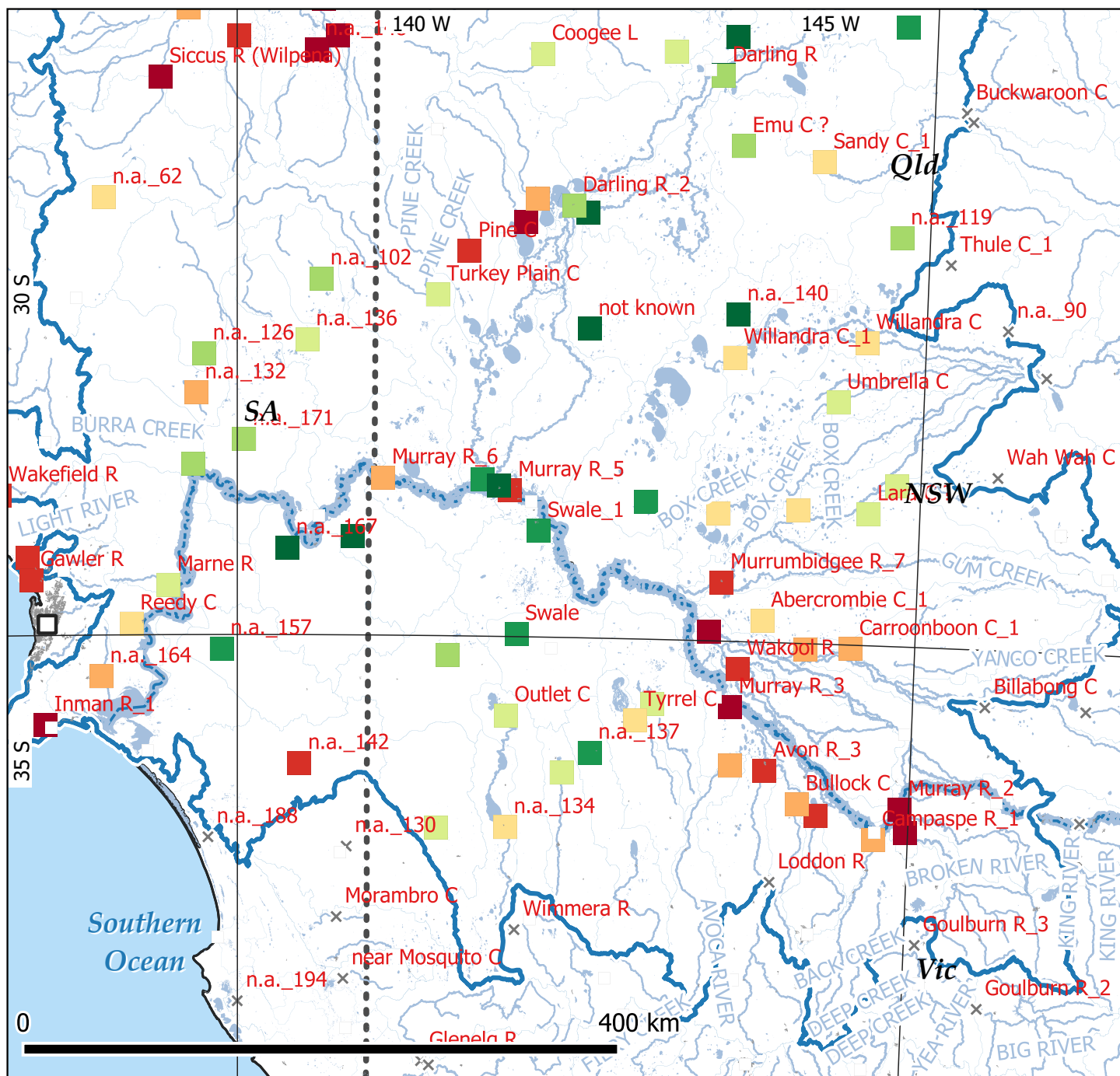
Figure SM2 (next page): The Darling-Curnamona-Delamerian (DCD) Sr isotope study area (dark blue outline) and National Geochemical Survey of Australia (NGSA) sample locations (crosses) overlain on the physiographic regions of Australia (Pain et al., 2011). The Murray River is highlighted by a thick light-blue line. Towns and state capital cities are indicated as white squares, and state borders as thick dotted lines.



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|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| DCD Study Area | Habitation |
| ✕ NGSA Site (DCD) | Capital |
| ✕ NGSA Site (Other) | Town |
| --- Murray River | |

Figure SM3 (next page): The northern Darling-Curnamona-Delamerian (DCD) Sr isotope study area (dark blue outline) and National Geochemical Survey of Australia (NGSA) sample locations (grey crosses outside the DCD; coloured squares inside) overlain on hydrology (light blue lines, with main water courses labelled in light blue too). The colours of the squares indicate the $^{87}\text{Sr}/^{86}\text{Sr}$ values from this study as per quantile scale in Legend. At each NGSA sample site, the in-field recorded name of the closest watercourse is shown in red (C = Creek, R = River, L = Lake/s, n.a. = not available, _xxx = suffix where same name already exists).

35 **Figure SM4 (next page):** The southern Darling-Curnamona-Delamerian (DCD) Sr isotope study area (dark blue outline) and National Geochemical Survey of Australia (NGSA) sample locations (grey crosses outside the DCD; coloured squares inside) overlain on hydrology (light blue lines, with main water courses labelled in light blue too). The colours of the squares indicate the $^{87}\text{Sr}/^{86}\text{Sr}$ values from this study as per quantile scale in Legend. At each NGSA sample site, the in-field recorded name of the closest watercourse is shown in red (C = Creek, R = River, L = Lake/s, n.a. = not available, _xxx = suffix where same name already exists).



DCD Study Area

NGSa Site (DCD)

NGSa Site (Other)

NGSa Catchment

Habitation

Capital

Town

Hydrology

Water Course

Lake

Murray River

87Sr/86Sr NGSA

0.7089 - 0.7115

0.7115 - 0.7130

0.7130 - 0.7169

0.7169 - 0.7199

0.7199 - 0.7216

0.7216 - 0.7274

0.7274 - 0.7366

0.7366 - 0.7511

Reference

- Pain, C., Gregory, L., Wilson, P., and McKenzie, N.: The Physiographic Regions of Australia - Explanatory Notes. Australian
40 Collaborative Land Evaluation Program (ACLEP) and National Committee on Soil and Terrain (NCST), Canberra, 30 pp,
2011. Available at: <https://publications.csiro.au/rpr/pub?pid=csiro%3AEP113843>