

East Pilbara Independent Rail Project, stage 1

Aurizon Operations Ltd



CLIENT:

Aurizon Operations Ltd

LOCATION:

East and Central Pilbara

SERVICES:

- Invertebrate desktop review
- Two-season, Level 2 short-range endemic invertebrate fauna survey
- Taxonomy, including DNA barcoding
- Impact assessment

KEY ACHIEVEMENTS:

- Comprehensive data on SRE invertebrates for a poorly surveyed area of the Pilbara, including COI barcodes lodged with the WA Museum
- Habitat-based impact assessment identifying areas of low impact to inform final alignment of the railway line

The East Pilbara Independent Rail Project runs approximately 250 km south from Port Hedland linking existing and emerging mining developments to port infrastructure. Phoenix completed a Level 2 short-range endemic (SRE) invertebrate fauna survey, which investigated the rail corridor, planned borrow pits, water sources and regional reference sites.

Aurizon Operations Ltd (Aurizon) investigated the construction of a railway line from Port Hedland to serve a number of mining developments in the central Pilbara. Phoenix completed the short-range endemic invertebrate fauna surveys over two seasons, which involved thorough sampling of habitats from multiple alignments and regional reference sites.

The planned alignments intersected with both the Woodstock-Abydos and Yandeyarra Aboriginal Reserves, requiring cultural awareness, co-operation with local elders and flexibility in sampling methodology.

Sections of the project area were often remote and difficult to access. These challenges were overcome using a helicopter for much of the fieldwork. Thorough sampling of the project area was achieved within the allocated timeframe.

Phoenix conducted extensive molecular identifications (COI barcoding) of groups for which morphological identifications were not possible due to either unsuitable life stages (i.e. juveniles) or where there was poor taxonomic knowledge. These facilitated the establishment of wider distribution patterns for many of the target invertebrates and demonstrated an overall low impact by the project on SREs.

Mapping of suitable habitat within the project area recognised areas of regional connectivity, which reduced the expected impact on SREs. Vast areas of non-SRE habitat were also identified for the rail alignments where the impact on SREs would be negligible.



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