

Short-range endemic invertebrates (SREs) **capability statement**



Dr Volker Framenau
Director; Manager,
Terrestrial Invertebrates and
Taxonomic Services



Phoenix is an industry leader in short-range endemic (SRE) invertebrate surveys based on extensive field experience in WA, unrivalled taxonomic expertise in the private sector and stringent reporting standards based on scientific publication principles.

We offer complete SRE survey solutions including well-planned survey design; efficient, HSE-compliant field work; fast, accurate in-house taxonomic services, and timely delivery of high-quality reports.

Dr Volker Framenau manages the SRE team. He is one of Australia's leading arachnologists and an internationally respected invertebrate expert with significant research and field experience. Volker is a Research Associate with and taxonomic consultant to the WA Museum, and Adjunct Lecturer at the University of Western Australia. He has been involved in environmental assessment studies for almost a decade providing independent advice to industry and government.

ABOUT SHORT-RANGE ENDEMIC INVERTEBRATES (SREs)

Short- or narrow-range endemism describes the phenomenon of naturally restricted geographic distributions of fauna and flora. However, within the WA environmental impact assessment (EIA) framework, SREs are often referred to in the context of terrestrial invertebrates, since the *EPA's Guidance Statement 20*,

'Sampling of short range endemic invertebrate fauna for environmental impact assessment in Western Australia', exclusively deals with terrestrial invertebrates. Other range-restricted flora and fauna, vertebrates and subterranean invertebrates, are covered by other relevant EPA guidelines.

SREs are defined by a nominal distribution range of less than 10,000km², although many have much smaller ranges. They generally have specific habitat requirements, often occurring in isolated habitat patches. Western Australian terrestrial SRE invertebrates include:

- spiders and their relatives (scorpions, pseudoscorpions and others)
- millipedes
- centipedes
- slaters
- land snails

The EPA's focus on SRE invertebrates in EIA is based on the high risk posed to these species from habitat disturbance.



Phoenix Environmental Sciences offers a broad range of complementary biological and environmental management services. Our team strikes the right balance of scientific credibility, practical application and business sense.



PHOENIX
ENVIRONMENTAL SCIENCES

1/511 Wanneroo Road, Balcatta WA 6021
T: (08) 9345 1608
E: admin@phoenixenv.com.au
ABN: 60 131 288 938
www.phoenixenv.com.au

While SREs are not afforded blanket protection under the *Wildlife Conservation Act 1950*, the impact of a proposed project on any SRE species must be assessed and protection (within the scope of the project) may be awarded if the survival of a species is threatened.

INDUSTRY ISSUES

Unknown distributions of SREs due to inferior taxonomic identification are the biggest impediment to impact assessments. SRE survey target groups belong to some of the most diverse, complex and poorest-known fauna in most of WA's bioregions. Disputes in taxonomy and misjudgement of distribution patterns can lead to costly project delays.

Designing an SRE survey for a mining approval or to meet license conditions can be a tricky business. In the absence of appropriate formal guidance and expertise in survey design, regulators may be overly cautious and prescriptive.

OUR SOLUTION

An accurate SRE assessment requires highly specialised taxonomic skills and research experience. Phoenix' scientists have a long-standing research and collaboration history with the WA Museum, the primary research institution for terrestrial invertebrates in WA, and cover almost all SRE invertebrate target groups.

Our team's up-to-date expertise is unparalleled in WA's private sector and includes:

- detailed knowledge of SRE habitats across Australia, specialising in WA
- extensive experience in project-specific and targeted survey design
- capability to identify in-house up to 95% of specimens collected in SRE surveys
- in-house expertise for genomics analyses, including DNA barcoding
- a streamlined and strategic approach to revising project conditions, status and limitations

SRE SERVICES

- SRE survey design
- Baseline surveys for EIA
- Targeted surveys for conservation significant SRE invertebrates
- Compliance monitoring of SRE species and habitats
- Strategic advice and review of SRE datasets

CONTACT

Dr Volker Framenau
T: 08 9345 1608
volker.framenau@phoenixenv.com.au
www.phoenixenv.com.au



"We have gone over your report and it's fantastic. Very refreshing to have a succinct and appropriate report for our project that requires almost no input from us. It's of a very high standard. Editing is not even required. And every time we wanted to see a map, there it was! Thank you."