Vertebrate Fauna Survey Coverage

GHD Environment
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**Aim** Talk direction

Explain the process of *site selection* and *survey coverage* when conducting surveys in a variety of habitats based on region, project size and shape.

Pre-survey planning for site selection.

- Linear corridors
- Polygons
- Disjunct areas
- Remnants (includes island)
Linear Corridors

- Linear corridors vary greatly in size and type, a road, rail, pipeline or power easement.
- The impact is going to vary between these types and therefore may affect the way sites are selected and coverage determined.
Polygons

- Can be assessed for a multitude of reasons and each project will vary in assessment.
- In this case the survey area is dominated by a major river bed with supportive environments.
- Sites selection involves sampling river bed, water body, riparian zones, dunes and plain.
- What uses the water body? – species may fly in.
- Seasonal use – migratory species
Polygon

- A more homogenous site with subtle changes in the environment but still has clay plan, plain and shrublands.
- Maybe within a ecotone.
Disjunct Areas

- Consists of two or more polygons within a general area
- During site selection we need to consider if we treat the survey area as separate units or survey a much larger polygon
- In this case numerous locations have had previous targeted surveys and could be taken into account during site selection and coverage
Remnant

- Often an island in the landscape.

- Depending on size may dictate effort and selection of sites – targeted assessments maybe more relevant.
Large diverse areas

- Large survey areas (15 km x 3 km) with multiple environments
- The use of a level 1 survey or simply a 2/3 day inspection greatly assists in selection.

Site selection would include:
- Covering multiple habitat types
- Targeting species
- Site positioning, maybe significant i.e. in relation to aspect in the environment
Islands

- Sites can be selected both randomly and selective in this case the island is mostly homogenous with pockets of habitat like dunes, vine thickets, deep valley.
- However difficult to access.
- Previously disturbed areas present with existing environmental impacts.
**Targeted Assessment**

- All Level 1 and 2 surveys may have been undertaken however specific guidelines for a species may require a different assessment type and additional survey effort needed to determine impacts to the species.
- Pre determined survey area within a long linear corridor surrounded by rural lots.
- Use of a control site.
In Concluding

- Site selection will vary between survey areas.
- Experience of personnel deciding on site selection and coverage of survey area is very important.
- Utilise Level 1 assessments and/or a preliminary visit to a new area to assist in site selection and survey coverage.
- Understand the proposed project and the impacts to the environment, it greatly assists in the understanding of potential impacts to fauna and how these can be reduced or mitigated.