Ecological Monitoring System Australia

Datasheets: Opportune Module

A blue and black binoculars

AI-generated content may be incorrect.

Version 2

4 July 2025

Version control

Readers are advised that this datasheet will undergo revision as the EMSA Monitor app undergoes new refinement and updated versions become available. The names of the fields may vary slightly from the modules and the datasheet during this process.

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| **Datasheet version** | **Date** | **Version update overview** |
| 1.0 | 8 May 2024 | Release of the datasheet matching Monitor version 1.0.1 |
| 2 | 4 July 2025 | Release of the datasheet matching Monitor version 1.0.7 |

Instruction

This datasheet can be used if the Monitor app is not accessible at the time of a field survey. The datasheet has been designed to match the EMSA module manual and the Monitor app workflow. However, there are some minor differences, as capturing the quantity and complexity of the data in hard-copy form is difficult to replicate. At times some additional information or less information is collected on the datasheet. Examples of this are where the app would readily collect the location, date and time information of each input with minimal user input, but the datasheet version only collects the survey start and end location, date and time.

Surveyors must follow the EMSA module manual as though they are using Monitor, i.e. by following the Instructions and Procedures section of the relevant protocol, but instead of entering the data in Monitor, data is entered on the datasheet.

**Surveyors are reminded to check the module manual to ensure that the mandatory pre-survey and prerequisites have been completed prior to undertaking the module.** A key example is where the Plot Selection and Layout Module must be completed prior to undertaking all plot-based protocols.

This datasheet can either be printed and used in the field using a pencil or used digitally on a device.

**Regional Delivery Partners are responsible for manually entering datasheet-collected data into Monitor once the app is fully functional again. The Department of Climate Change, Energy, the Environment and Water require that digital scans of the datasheets be uploaded into MERIT.**

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| Minimum detail | | | | | | | | | | | | | |
| Observer name\* | Obs. ID\* | Date & time\* dd/mm/yyyy, 24 hr | Location\* Lat/Long waypoint | Photo/media ID | Taxa type\* | Species\* | Confident ID\*  (Y/N) | # indiv\* | # is exact or estimate\* | Observation method tier 1\* | Observation method tier 2 | Habitat (Major Vegetation Group) | Comments |
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| Additional Flora details | | | | | | | | | |
|  | | | | | If vouchering | | | | |
| Observer name\* | Obs. ID\* | Growth form | Life stage | Voucher specimen (Y/N) | Voucher barcode ID\* | Voucher type tier 1\* | Voucher type  tier 2 | Preservative type | Comment |
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| Additional Fauna details | | | | | | | | | | | | | | | |
|  | | | | | | | | | | If vouchering | | | | | |
| Observer name\* | Obs. ID\* | Sex | Age class | Breeding status | Weight (g) | Totoal length (mm) | Head Length (mm) | Other lengths (specify) | Voucher specimen (Y/N) | Voucher barcode ID\* | Voucher type tier 1\* | Voucher type  tier 2 | Condition of specimen | Preservative type | Voucher comments |
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| **OPPORTUNE MODULE – DROPDOWN FIELD OPTIONS** | | | | | | | | | | |
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| **Observation method**  **(Tier 1)** | **Observation method (Tier 2)** | **Observation method (Tier 3)** | **Observation method**  **(Tier 1)** | **Observation method (Tier 2)** |  |  | **Taxa type** |  |  | **Habitat (Major Vegetation Group)** |
| Sign | Carcass (full) |  | Seen | No method stated |  | A | Amphibian |  | MVG 1 | Rainforest and Vine Thickets |
| Sign | Carcass (partial) |  | Seen | Spotlighting |  | B | Bird |  | MVG 2 | Eucalypt Tall Open Forests |
| Sign | Bone/teeth |  | Seen | Air - helicopter |  | I | Insect |  | MVG 3 | Eucalypt Open Forests |
| Sign | Skin |  | Seen | Air - fixed wing |  | M | Mammal |  | MVG 4 | Eucalypt Low Open Forests |
| Sign | Shell |  | Seen | Remote camera |  | N | Non-vascular plant |  | MVG 5 | Eucalypt Woodlands |
| Sign | Feather |  | Seen | Other (specify) |  | P | Vascular plant |  | MVG 6 | Acacia Forests and Woodlands |
| Sign | Hair/fur |  | Heard | No method stated |  | R | Reptile |  | MVG 7 | Callitris Forests and Woodlands |
| Sign | Tracks |  | Heard | After call playback |  |  |  |  | MVG 8 | Casuarina Forests and Woodlands |
| Sign | Diggings |  | Heard | Acoustic recording |  |  |  |  | MVG 9 | Melaleuca Forests and Woodlands |
| Sign | Scratchings (ground) |  | Heard | Ultrasonic recording |  |  |  |  | MVG 10 | Other Forests and Woodlands |
| Sign | Scratchings (arboreal) |  | Captured | Hand capture |  |  |  |  | MVG 11 | Eucalypt Open Woodlands |
| Sign | Wallow |  | Captured | Pitfall trap |  |  |  |  | MVG 12 | Tropical Eucalypt Woodlands / Grasslands |
| Sign | Travel pad |  | Captured | Elliott trap |  |  |  |  | MVG 13 | Acacia Open Woodlands |
| Sign | Odour |  | Captured | Funnel trap |  |  |  |  | MVG 14 | Mallee Woodlands and Shrublands |
| Sign | Scats | Fresh, Old | Captured | Harp trap |  |  |  |  | MVG 15 | Low Closed Forest and Tall Closed Shrublands |
| Sign | Within scat |  | Captured | Mist net |  |  |  |  | MVG 16 | Acacia Shrublands |
| Sign | Pellet |  | Captured | Cage trap |  |  |  |  | MVG 17 | Other Shrublands |
| Sign | Within pellet | Recent, subfossil | Captured | Trap type unknown |  |  |  |  | MVG 18 | Heathlands |
| Sign | Within gut content |  | Captured | Wet pitfall trap |  |  |  |  | MVG 19 | Tussock Grasslands |
| Sign | Burrow | Active, inactive | Captured | Malaise trap |  |  |  |  | MVG 20 | Hummock Grasslands |
| Sign | Den | Active, inactive | Captured | Pan trap |  |  |  |  | MVG 21 | Other Grasslands, Herblands, Sedgelands and Rushlands |
| Sign | Nest | Active, inactive, with egg, with chick | Captured | Light trap |  |  |  |  | MVG 22 | Chenopod Shrublands, Samphire Shrublands and Forblands |
| Sign | Eggs/eggshell |  | Captured | Sweep net |  |  |  |  | MVG 23 | Mangroves |
| Sign | Subfossil/fossil |  | Captured | Other (specify) |  |  |  |  | MVG 24 | Inland aquatic - freshwater, salt lakes, lagoons |
| Sign | Exoskeleton |  |  |  |  |  |  |  | MVG 25 | Cleared, non-native vegetation, buildings |
| Sign | Radio-tracking |  |  |  |  |  |  |  | MVG 26 | Unclassified native vegetation |
| Sign | GPS tracking |  |  |  |  |  |  |  | MVG 27 | Naturally bare - sand, rock, claypan, mudflat |
| Sign | Satellite tracking |  |  |  |  |  |  |  | MVG 28 | Sea and estuaries |
| Sign | Hair tube |  |  |  |  |  |  |  | MVG 29 | Regrowth, modified native vegetation |
| Sign | Scent pad |  |  |  |  |  |  |  | MVG 30 | Unclassified Forest |
| Sign | DNA |  |  |  |  |  |  |  | MVG 31 | Other Open Woodlands |
| Sign | eDNA | Soil, water, plant, air, invertebrate derived, vertebrate derived |  |  |  |  |  |  | MVG 32 | Mallee Open Woodlands and Sparse Mallee Shrublands |
|  |  |  |  |  |  |  |  |  | MVG 99 | Unknown/no data |
|  |  |  |  |  |  |  |  |  | N/A | flyover |

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| **OPPORTUNE MODULE – DROPDOWN FIELD OPTIONS** | | | | | | | | | | | | |
| **Growth form** |  | **Life stage** |  | **Age class** |  | **Breeding status** |  | **Voucher type**  **(tier 1)** | **Voucher type (tier 2)** | |  | **Condition of specimen** |
| Tree |  | Seedling |  | Adult |  | Unknown |  | Animal tissue | Ear clip/punch, feather, fur/hair, heart, kidney, liver, spleen, muscle, fat, scale, skin, skull, bone, stomach contents, tail, toe, wing | |  | Fresh (estimate <24 hours) |
| Tree mallee |  | Sapling |  | Immature (subadult) |  | Breeding |  | Blood | Blood smear, whole blood | |  | Fresh (estimate 24 hours – <48 hours) |
| Shrub |  | Buds |  | Juvenile |  | Teats - Lactating |  | Carcass | Partial, complete | |  | Partially degenerated (estimate 2-7 days) |
| Mallee shrub |  | Flowers |  | Tadpole |  | Teats - Distended |  | Plant | Partial, complete | |  | Partially degenerated (estimate 1-2 weeks) |
| Heath shrub |  | Immature fruit |  | Egg/egg mass |  | Teats - Button |  | Plant tissue |  | |  | Degenerated (estimate 2-4 weeks) |
| Chenopod shrub |  | Mature |  | Metamorph |  | Testes - scrotal (placentals only) |  | Regurgitant |  | |  | Long dead (> 4 weeks) |
| Samphire shrub |  | Recently shed |  | Nymph |  | Testes - abdominal (placentals only) |  | Scat |  | |  | Unknown |
| Tussock grass |  | Dead/dormant |  | Larva |  | Nesting |  | Other (specify) |  | |  | Other (specify) |
| Hummock grass |  | Vegetative |  | Pupa |  | Not breeding |  |  |  |  | |  |
| Other grass |  | Regenerating |  | Unknown |  | Pregnant |  |  |  |  | | **Preservation type/concentration** |
| Sedge |  |  |  |  |  | Pouch not developed (marsupials only) |  |  |  |  | | Dried and stored |
| Rush |  | **Sex** |  |  |  | Pouch developed, no young present (marsupials only) |  |  |  |  | | Dry ice (solid C02) |
| Forb |  | Male |  |  |  | Dependent young |  |  |  |  | | Ethanol - denatured |
| Tree-fern |  | Female |  |  |  | Dependent young in pouch (marsupials only) |  |  |  |  | | Ethanol - undenatured |
| Fern |  | Unknown |  |  |  | Dependent young (in nest) |  |  |  |  | | Ethanol/formalin mixed solution |
| Bryophyte |  | Mixed sexes |  |  |  | Gravid (carrying eggs or young) |  |  |  |  | | Fixed (smear) |
| Lichen |  | Not recorded |  |  |  |  |  |  |  |  | | Formalin |
| Epiphyte |  | NA |  |  |  |  |  |  |  |  | | Frozen (domestic freezer -20°C) |
| Vine |  |  |  |  |  |  |  |  |  |  | | Liquid nitrogen (N2) |
| Palm |  |  |  |  |  |  |  |  |  |  | | Methylated spirits |
| Grass-tree |  |  |  |  |  |  |  |  |  |  | | Propylene glycol |
| Cycad |  |  |  |  |  |  |  |  |  |  | | Refrigerated |
| Seagrass |  |  |  |  |  |  |  |  |  |  | | Saline solution |
| Aquatic |  |  |  |  |  |  |  |  |  |  | | Silica |
| Lower plant |  |  |  |  |  |  |  |  |  |  | | Unspecified |
| Unknown |  |  |  |  |  |  |  |  |  |  | | Other (specify) |