## Supplementary information

## Surveillance strategies for trombiculid mite populations to support scrub typhus risk modelling: A scoping review protocol

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## Appendix 1: JBI checklist for scoping review protocol

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## Appendix 2: Supplementary table(s)

Table S1 List of study categories used in this review.

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| **Theme code** | **Theme** | **Category code** | **Category** | **Description / Criteria** |
| T1 | Surveillance | C1‑1 | Cross-sectional mite population surveillance | Studies that quantify mite presence (abundance) in defined sites or hosts (e.g. per host) that do not repeat over time. |
|  |  | C1‑2 | Longitudinal mite population surveillance | Studies that quantify mite presence (abundance) in defined sites or hosts repeatedly over time (e.g. monthly or quarterly). |
| T2 | Sampling Methods | C2‑1 | Sampling methods development or comparison | Studies that propose, test or compare trombiculid mite collection techniques (e.g. black‑plate vs. host brushing vs. soil extraction). |
| T3 | Taxonomy | C3‑1 | Identification of new species | Studies focused on determining mite species using morphological keys, molecular barcoding or phylogenetic analyses. |
| T4 | Ecology | C4‑1 | Spatial distribution mapping | Studies that georeferenced mite occurrences and produce distribution maps at any spatial scale (village, district, region). |
|  |  | C4‑2 | Host–mite interaction | Investigations of host specificity, infestation rates, co‑infestation patterns or host community effects on mite load (e.g. rodent species comparisons). |
|  |  | C4‑3 | Environmental influence on mite populations | Studies examining how factors like temperature, humidity, vegetation, land‑use or soil type correlate with mite distribution, abundance or diversity. |
| T5 | Transmission | C5‑1 | Scrub typhus risk assessment or modelling | Studies that integrate mite data into spatial or statistical models to predict scrub typhus risk, hotspots or transmission zones. |
|  |  | C5‑2 | Vector competence or transmission studies | Laboratory or field work testing mites’ ability to acquire, maintain or transmit OT (e.g. infection assays). |
|  |  | C5-3 | Serological survey | Studies that detect antibodies to OT in human or animal populations to assess exposure or infection risk. |
|  |  | C5-4 | Scrub typhus case surveillance | Studies that report incidence or prevalence of confirmed scrub typhus cases in human populations. |
| T6 | Synthesis | C6‑1 | Reviews and meta‑analyses | Narrative reviews or quantitative syntheses pooling data. |
| T7 | Other | C7‑1 | Other (please specify) | Any study objective not captured above—must include brief free‑text description (e.g. “Community knowledge surveys” or “Economic impact assessments”). |