



The Distribution of Big Headed Ants in Alice Springs

Objective: To analyse and interpret the data collected on the distribution of Big Headed Ants in Alice Springs, and consider the implications of these results.

Classroom Activities

1. *Class Discussion and Journal*

In the previous exercise the data for all students in the class was entered into the database and viewed as a map in ArcExplorer. For a more extensive data set for class discussion teachers may wish to combine the data sets for all classes in the school participating in the program, or **obtain all the data for Alice Springs from CSIRO**. This can then be printed out as a hard copy map and distributed to each student for the discussion and as a record for their project Journal.

In discussing the results, students can be encouraged to explore a variety of different possible explanations for the observed distributions of Big Headed and native ants (where data is available). At the end of this process these could be framed as a set of likely hypotheses, and some thought given to how future field work / experiments could be designed to specifically test each one. For example, what areas would you expect Big Headed Ants to arrive in next, given a particular hypothesis?

2. *Advanced Interrogation of ArcExplorer*

An extension activity for interested

students could be to explore the capacity of ArcExplorer to give further information that may shed light on some of the theories identified in the class discussion. For example, determining the average distance between infestations, or the distance from older and longer settled parts of town. Please note that as a freeware viewer ArcExplorer's GIS capacity is relatively limited.

3. *Formal write-up*

A further extension of this project would be to ask students to formally write up the study with Aims, Methods, Results and Discussion/ Conclusions taken from their Journal records.

4. *Practical implications of the Big Headed Ant Mapping Project*

An important final step is to consider the implications of the results of this study for controlling the spread of the ants in Alice Springs, managing their impact on native species and choosing an appropriate eradication strategy. This could be discussed in class and students encouraged to include at the end of their formal reports.



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