



INSPIRING ECOLOGY

Teaching Tomorrow's Ecologists

MATERIALS AND METHODS

Virtual Hides Methods

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Materials & Methods

For this study an avian feeding station was established in Brewongle, Bathurst, New South Wales, Australia over a 6 - week period. 15th October 2017 – 29th of November 2017.

To attract birds from the local ecosystem, a multitude of food sources were scattered in a section of grass approximately 3m².

100 grams of Watson and Williams Wild Bird Seed Mix ® (ingredients: sorghum, oats, wheat, barley, fine aviary grit, black sunflower, corn, safflower) was replenished every 48 hours. 50 grams of Peckish ® Meal worm (ingredients 100% mealworm) was also used and replenished every 48 hours. A variety of fruits and vegetables were also used (cherries dropped from a nearby cherry tree, plums also dropped from a nearby tree, 1 pineapple and 3 corn cobs).

After 5 weeks, bird species began using the feeding station. To capture their images, an iPhone 5c was housed in a hidden plastic container and attached to a metal frame.

Recordings were taken 4 times daily (09:00-10:00; 11:00-12:00; 13:00-14:00; 15:00-16:00) over a 5-day period.

4 of the video recordings were of good enough quality for data extraction.

Each video recording was edited to feature only birds; all other footage was removed. Video footage was edited using iMovie software on a MacBook Pro using OX El Capitan.

Footage was uploaded to YouTube and published online.

To extract data, each video was closely observed and a stopwatch was used to collect time data for each bird that entered the feeding area. All birds were recorded and identified, even those not feeding. If birds could not be identified properly, they were omitted from the data.

Time data was recorded in Microsoft Excel. Embedded Excel formulas were used to calculate the average time spent, standard deviation and variation for each species of bird.

To test our null hypothesis and compare time spent between each group of birds, an Analysis of Variance (ANOVA) was conducted using the 'Data Analysis' tools available in Excel.