

...more easy ecology activities for school and home

2. Cat *erp*illar amongst the pigeons (or any other birds)

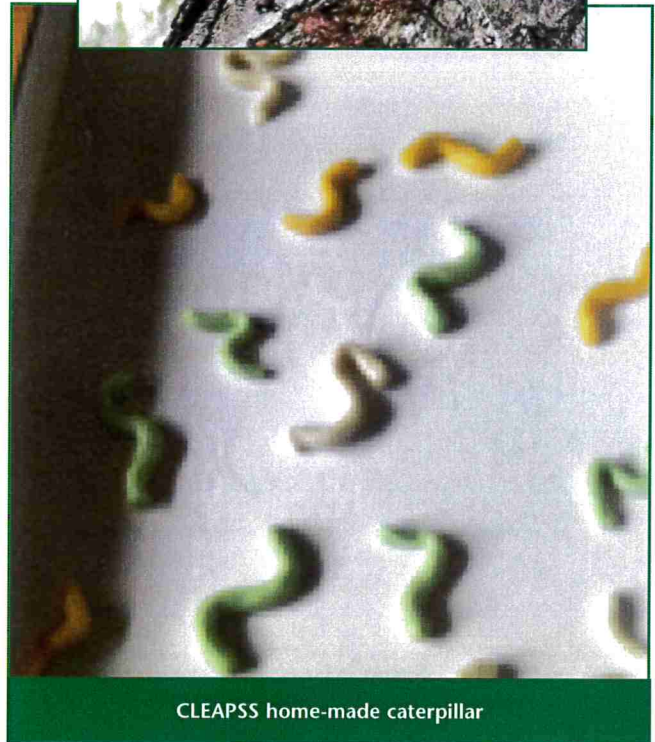
Fake caterpillars, made from non-toxic plasticine, have been used in research studies to observe predation behaviours in birds and insects, and mimicry patterns in caterpillars. These caterpillars are placed onto plants and visited over several days for a few weeks. Evidence of predation can be seen by the number of 'bites' on the caterpillars. This research could be useful in the future to assist farmers in attracting birds which might have the potential to biologically-control pests in crops. CLEAPSS replicated this activity by creating caterpillars out of home-made dough and food colouring. We trialled different coloured caterpillars to identify which colour attracted the most birds. The caterpillars were placed onto trees (if the caterpillars don't stay in position you can use a little non-toxic glue) and monitored for the amount of pecking, daily for a week. After the observations, we carefully removed the caterpillars and any glue from the trees.

Investigations could include:

- Do different sorts of birds peck at different sized 'caterpillars'?
- Do the colours make any difference?
- Does clustering the 'caterpillars' make a difference?

Students could also use the dough to make imitation beetles, or other insects, spiders, slugs, etc.

After the investigation, students could provide an illustrated summary of what they found.



CLEAPSS home-made caterpillar

Home-made play dough recipe

(makes ample for a class set – scale down where needed)

Use a 250ml beaker or measuring jug to measure out ingredients

200ml flour

Extra flour if needed

50-75ml salt

100ml water

2 teaspoons oil (any edible oil will do)

2 teaspoons of cream of tartar (optional – it helps the dough to keep)

Food colouring

Some bowls or similar containers for mixing the ingredients

Method

- Mix the flour, oil, cream of tartar and salt together in a single bowl or tub.
- If you plan to use more than one food colouring then divide the water among different bowls. For each colour, add 1-2 drops of food colouring to the relevant bowl.
- Add the flour mixture to the water in the same approximate proportion as the water. I.e, if the water is divided into 4 portions then divide the flour mixture into four also. (There is no need, of course, to do this if you only use one colour.)
- Mix the flour, etc. and water.
- Keep mixing until you get a smooth, soft dough. (If the dough is too sticky, add a teaspoon of flour. If the dough is too dry add a splash of water.)
- Knead the dough with your hands for 2 minutes just to soften and smooth out the dough before moulding. This may be easier on a hard surface rather than in the mixing bowl.
- Mould the dough into caterpillars. If you find the caterpillars dry out too quickly, add more oil to your dough.

Wrap any unused dough in cling film and place in the fridge. It will keep for up to a week.