

Crushed dolomite brings spectacular results

In *NERC News* Spring 2002 Clive Mitchell wrote about BGS helping Zambian farmers grow better crops by converting an old hammer mill to grind up dolomite. The farmers then add it to the soil to fertilise it.

Since then Clive has been back to Zambia to see how the crops are doing.

He said 'The results are dramatic with maize growing up to 2.5m tall, with expected yields of up to six tonnes per hectare in the limed plots. That's at least three times more than the unlimed plots.'

The work has been so successful it even got a mention on BBC World Service programme *Science in Action*.

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Clive Mitchell with 2.5m maize grown using crushed local dolomite in Zambia

Man-made rubbish in the seas, especially plastics, has almost doubled the spread of alien species in the subtropics and more than tripled it at high latitudes, British Antarctic Survey (BAS) scientist David Barnes has found.

His findings are based on a ten year study of litter (mostly plastic) washed ashore on 30 remote islands around the globe, from the Arctic to the Antarctic.

Since the creation of plastics over 50 years ago, floating litter has provided mobile homes for marine organisms such as bryozoans, barnacles, polychaete worms, hydroids and molluscs, increasing their opportunities to disperse to new areas. Many seem to prefer plastics, such as the piece of debris in the picture above, to natural matter such as volcanic rock, pumice and wood.

David and colleagues are investigating what effect this could have on Antarctica's native marine animal life. The predicted 2°C temperature increase in the



Discarded human debris threatens global biodiversity

Southern ocean over the next 100 years will weaken Antarctica's natural barrier, which currently freezes out alien species.

David says, 'If alien species enter the region they have the capacity to drastically and irrevocably change these ecosystems.'

David Barnes would like to hear from anyone who would be able to conduct simple shore debris surveys, particularly from the following islands; Andamans, Ille Amsterdam, Bermuda, Chagos, Clipperton, Cocos/Christmas, Gilbert, Midway, Society, Socotra, Trinidad and Wake. Contact him on 01223 221613 or email dkab@bas.ac.uk

Squirrel survey

Not many people know this, but the world's longest running survey of red squirrels is in the south of England. Yes, there are red squirrels in the south, not just in Scotland.

They live on the Isle of Wight, and three islands in Poole Harbour: Brownsea, Furzey and Green Islands.

This year, students from Purbeck School, Wareham, Dorset, helped scientists from CEH Dorset survey squirrels on Green Island. The island supports a tiny population of red squirrels which got across to it in the late 1990s from Furzey Island, probably at low tide.

Red squirrel numbers on the islands depend almost entirely on how many pine cones there are to eat. There aren't many pines on Green Island, so CEH expert Robert Kenward expects the population there to remain small.

A buzzard may also keep their numbers down. It was regularly spotted on Furzey Island during 2001, but roosted on Green Island for the winter.

Robert is not worried that it will dramatically harm the red squirrel population. He said 'I would expect it to disappear from Green Island as there isn't enough food there for it. It doesn't have a dramatic effect on squirrel numbers of Furzey.'

To see red squirrels in the south, visit Brownsea Island, owned by the National Trust.

To find out more about the red squirrel study on Furzey Island go to www.keh.ac.uk and visit the CEH Dorset pages.

