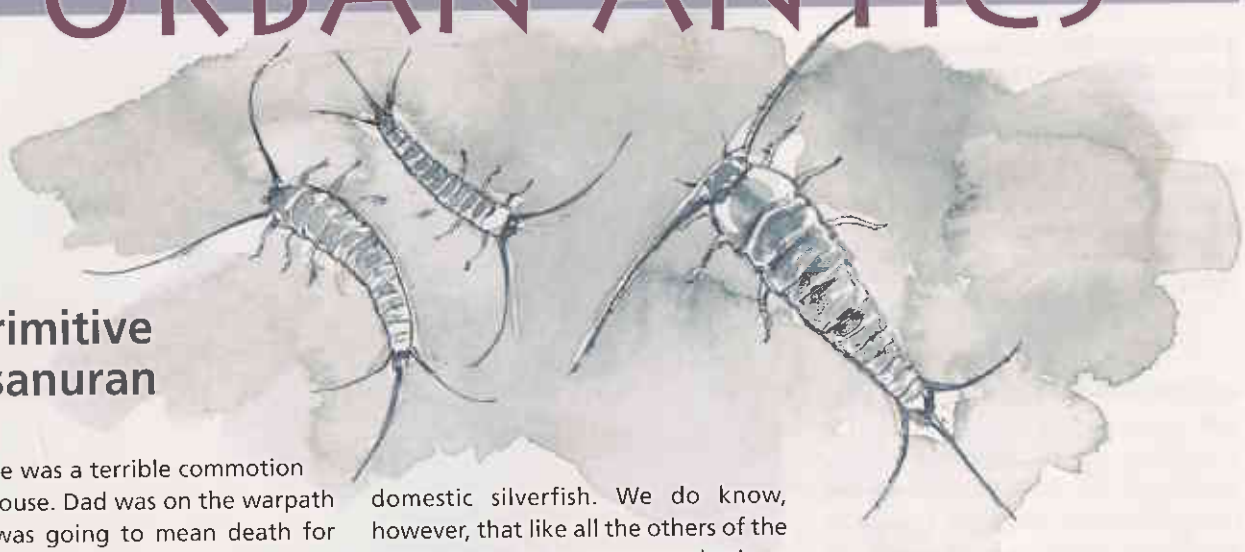
URBAN ANTICS



A primitive thysanuran

There was a terrible commotion in the house. Dad was on the warpath and it was going to mean death for silverfish that had eaten grandma's face off in the hallway.

This sort of talk was frightening for a youngster, as far as I could work out we hadn't been fishing for weeks, grandma lived in Melbourne and my father didn't drink. And so to war we marched, up and down the passage, the old fly-spray pump going flat-strap.

In those days you didn't query adults, you simply waited to be told what was really happening, or high-tailed it to your room to quietly decipher the innuendo. Finally I had it —they were insects that had damaged our family photos.

Silverfish... who in their right mind started that misnomer?

Have you ever picked up a treasured photo, or your favourite 1949 copy of *Woman's Day* magazine from the bottom of a rarely used drawer? Chances are that silverfish have chewed, scraped, furrowed or eaten right through your adored image of the British royal family.

Silverfish are apterygote insects, primitive wingless insects that moult. They are of the Order Thysanura, whose members are small creatures with an elongated body, normal biting mouthparts, and three long, tail-like processes at the end of the abdomen.

While there are quite a few species of silverfish throughout the world, the one most familiar to us is *Lepisma sacharina*. This animal is an immigrant from Europe and is found in our homes and sheds, where it inhabits cool, dark and damp places.

Like so many common things, little is known of the life history of our domestic silverfish. We do know, however, that like all the others of the order, there is no metamorphosis or passing through the development stages of egg, larva, pupa and imago.

From the time it emerges from an egg, the tiny beast is a true reproduction of its parents, and as it grows it simply moults its 'skin' (which is actually an exoskeleton) to achieve a more roomy covering. After about six or seven moults the five to 15 millimetre long adult is sexually mature and carries on its life of continuous activity with no apparent resting periods.

Between September and March (typical high season for insects) silverfish reproduce. The male deposits a sperm capsule, and the female picks it up and transfers it to her genitalia (how really boring). A rather large egg (about the size of a small pinhead) for such a small animal is then laid anywhere near a food source, or simply on the lounge room carpet.

Silverfish live for about four years, and are nocturnal. They shun the light and, when disturbed, scurry with tremendous speed to hide in cracks and crevices. The animals possess strong toothed mandibles or jaws and their food includes the surface of bookcovers, photographs and wallpaper. The starchy dressing in these objects seems to provide the chief attraction. Dusty corners also seem to provide an attractive habitat and food source.

Although they are considered to be harmless, silverfish nevertheless cause consternation in any household. While we can clean and spray within the home to rid us of these freeloaders, one is thankful that they are mere specks on the carpet. The fact that they will readily devour their own cast off 'skins', or the dead bodies of other insects, and in captivity show unmistakable cannibalistic tendencies, serves us to give thanks they are not the size of the family dog.

BY JOHN HUNTER

DID YOU KNOW?

- *Their common name is due to the rich silver lustre of their exoskeleton, which is covered by minute scales that become a residue of fine metallic dust when brushed from the animal. Under a microscope each scale is as beautiful as a finely sculptured scallop shell.*
- *Among the most primitive of living insects, silverfish are so soft and delicate they have never left a single trace of their existence as fossils in enduring prehistoric stone.*
- *There are also many native species of silverfish that live under bark and leaves on the ground and never venture near human dwellings. Others are tolerated inhabitants of ant and termite nests.*

058005

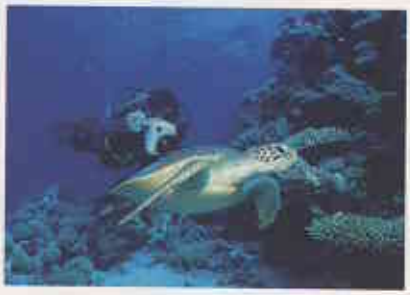
Winner of the 1998 Alex Harris Medal for excellence in science and environment reporting.

LANDSCOPE

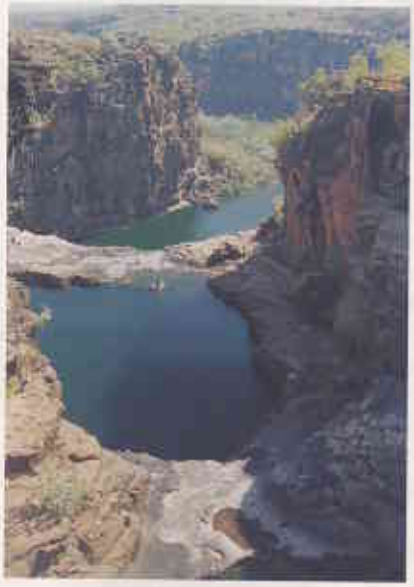
VOLUME SIXTEEN, NUMBER 3, AUTUMN 2001

Armed with sketch pad, pencils, pens and paints, an intrepid group of artists set off on a brand new LANDSCOPE *expedition. See 'Awash with Colour' on page 28.*

Most of us only know of the exotic pest ants that invade our kitchens. But what of the great Australian ants? See page 23.



Ningaloo Marine Park and Cape Range National Park lie side by side in our north-west corner. Read about how they are managed on page 17.



Four more conservation reserves now offer greater protection to areas in and around the Mitchell Plateau. See 'Parks of the Plateau' on page 48.

Scientists continue to develop ways to locate, track and trap animals for research. See 'Tools of the Trade' on page 41.

FEATURES

REGULARS

COVER

For many years, the decline of frogs in various parts of the world has puzzled conservationists. A breakthrough came in 1996 when scientists isolated a new kind of fungus that infects and may kill frogs. Western Australian research now under way is beginning to answer some initial questions about the fungus and its impact on our unique frogs. See 'In Pursuit of the Frog Fungus' on page 10.

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