

Lifelong study suits spiderwoman

February 24 2015, by Samille Mitchell



Ms York Main's fascination for nature's smaller creatures stems from a childhood on a farm in the Wheatbelt, where she'd spend her days in the bush, enchanted by the lives of tiny, mystifying creatures. Credit: Marshal Hedin

If there's one name that's synonymous with spider research in Western Australia it's Barbara York Main.

This 86-year-old scientist has published four books, written about 70

papers and discovered more species of spider than she can remember.

But in the world of science Ms York Main Barbara is perhaps best known for having conducted the world's longest-running study into a single population of spiders.

Ms York Main started officially studying a population of trapdoor spiders (of the suborder Mygalomorphae) more than 40 years ago, in a patch of bush near her childhood home, with the intention of observing them over 20 years.

But a single female trapdoor spider in the study remains alive today so Barbara has kept the study going.

Such is her dedication to this population of trapdoor spiders, and others, that Ms York Main has become a world-renowned expert in the field.

Trapdoors are a fascinating group of spiders which build web-lined burrows in the earth and fit 'trapdoors' to their entrance.

Ms York Main is endlessly fascinated by their traits.

"They are among the oldest group of spiders and, over the millennia that have adapted to all sorts of habitats and, accordingly, built different sorts of burrows for catching prey," she says.



Barbara York Main

"And (the Wheatbelt population) is remarkable. I thought they'd probably live up to 20 years at the most—that's what I'd planned the project for—but no, I've got to keep going!"

Ms York Main's observations have revealed that trapdoor spiders are the only known spiders to inhabit one burrow for life.

While male trapdoor spiders leave their burrows to mate and then die, females continually maintain and housekeep their homes.

Ms York Main's fascination for nature's smaller creatures stems from a childhood on a farm in the Wheatbelt, where she'd spend her days in the

bush, enchanted by the lives of tiny, mystifying creatures.

So when it came time to decide on a career path, the choice was easy—a science degree with UWA, where Ms York Main completed an Honours degree in zoology while also working as an entomologist with the

Department of Agriculture during the holidays.

She remains with the university even today, as an adjunct professor.

While Ms York Main spends less time working these days, she won't down tools completely while that female [trapdoor spider](#) in the Wheatbelt lives on.

"I can't give up on it," she says.

Provided by Science Network WA

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