

People in profile

by Samille Mitchell

Barbara York Main



This senior scientist is a force to be reckoned with in her field of study—trapdoor spiders. She has uncovered dozens of new species and brought about a whole new understanding of their ecological traits during her lifetime's work.

Barbara York Main rushes through the corridors of The University of Western Australia (UWA), where she's based as adjunct professor in the School of Animal Biology. Colleagues call out friendly welcomes as she passes but she can't stop to chat today—there's a mountain of things to be achieved. Digging into her pockets she pulls out sets of keys to unlock the office doors and, although she's in an extreme hurry, there is one thing that serves to stop this slightly built 84-year-old in her tracks—spiders.

But far from shriek with fright, Barbara stops to show off these specimens with a sense of sheer delight.

Previous page

Main Barbara at work in the field circa 1953.

Photo - Albert Main

Inset Barbara, 2013.

Photo - Samille Mitchell/DPaW

Inset background A *Nemisiid* trapdoor spider.

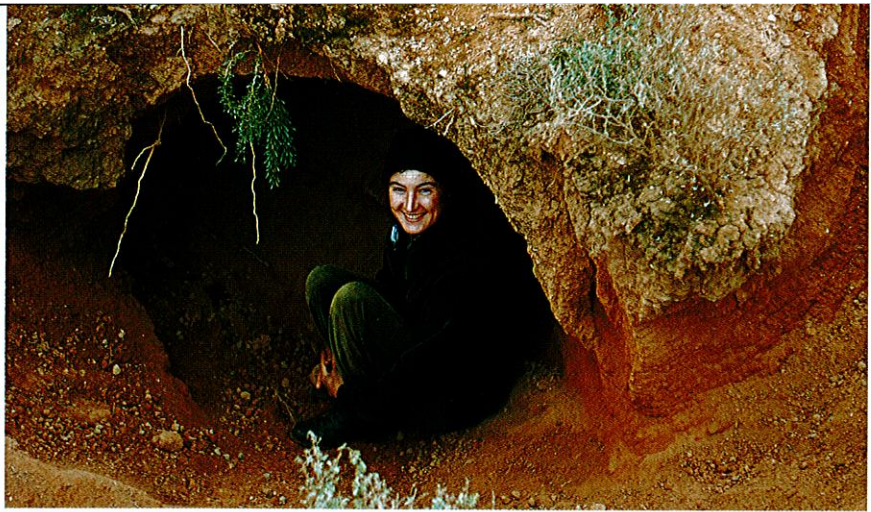
Photo - Jiri Lochman

Above right Barbara discovering a wombat hole in 1955.

Photo - Albert Main

Below A trapdoor spider burrow entrance.

Photo - Jiri Lochman



These particular species are Barbara's passion and are the subject of her lifetime's work. For here in a couple of flower pots, with the words 'live spiders' scrawled in pen on a note tacked to the side of one, are two unnamed species of *Gaius* spiders, commonly called trapdoor spiders.

Barbara crouches down and points out one of the spiders' burrows—sturdily built, web-lined chambers leading down into the earth. At the entrance of one she indicates the stick lines the spider has attached—a guise to encourage prey to travel down the sticks to where the spider waits at the entrance to its lair to seize its victim. Barbara has tended to these spiders for the six years since she found them and discovered that they were new to science.

They are almost as precious as the spider population she has studied for 40 years in the Wheatbelt. Long-time associate Mark Harvey, Head of Terrestrial Zoology at the WA Museum, remembers visiting this population of spiders with Barbara as an astounding experience.

"It was just staggering to walk around with Barbara and witness the dedication she had towards her subject," Mark says.

"It was a life-changing event for me to witness the level of patience she demonstrated to study one population of spiders for so long.

"We even had to take off our boots and walk around in our socks so we didn't trample any of the spiders.

"The experience just highlighted to me the love and passion she has for her subject—not only spiders but everything else in the landscape."

A passion is born

Barbara has certainly more than achieved the dream she first conjured as a child growing up on a farm near the small Wheatbelt township of Tammin. Barbara decided early on in life to devote her career to the smaller creatures that most kids her age overlooked in favour of cute and furry animals, or charismatic snakes and other reptiles.

The second youngest of five siblings, the others all boys, Barbara looks back on her childhood with fond memories of adventures in the bush uncovering all sorts of fascinating miniature creatures.

"As kids we had a lot of freedom to roam around, particularly myself," she says.

"I spent a lot of time in the bush and found myself not so much into bigger animals but insects.

"I'd collect them and put them in



Right A typical defence pose of a Mygalomorph trapdoor spider.
Photo – Jiri Lochman

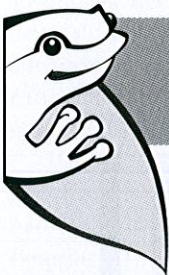
Below right Barbara and her husband Bert in 1990.
Photo – George O'Neill



shoeboxes, feed caterpillars—that was great fun—and dry specimens and pin them with my mother's sewing pins.”

Her family was bemused by Barbara's passion, and tolerated it. “I don't think they'd seen anyone so dedicated before,” she says.

Barbara's other passions were reading and writing. As a correspondence student she was required to pen fortnightly letters to her teacher, in which she poured out tales of her



WA NATURALLY
shop.dpaw.wa.gov.au

available publications
now include ...

Fill out this form and mail to WA Naturally
Publications, Locked Bag 29,
Bentley Delivery Centre, WA 6983

Prices include GST

Name: _____

Address: _____

Postcode: _____

Payment enclosed Visa Mastercard

Card number:

Expiry date: ____/____/____ Amount \$ _____

Signature: _____

Name (as it appears on card): _____

Daytime phone number: (H/W) _____

For faster service call (08) 9219 9070, fax (08) 9334 0498,
email customer.service@dpaw.wa.gov.au or visit **LANDSCOPE** online at shop.dpaw.wa.gov.au

memories of weekends spent with the Jessup family, having picnics in the bush and discovering more about the natural world around her. She also felt immense satisfaction at the recognition of her interest as something to be supported, rather than merely tolerated.

lecturer at the University of Otago in Dunedin, New Zealand. While she relished this opportunity there was a certain ex-serviceman she'd attended university with that lured her back home—her future husband Albert, or Bert Main.

she says. “I loved being in the bush, the camping, but also having the work we were doing being appreciated,” she says.

Mark Harvey also has fond memories of life in the field with Barbara. “I was always amazed by what

DESCRIPTION	QTY	PRICE	TOTAL
Western Australia 2014 Calendar <small>*Refer to postage charges below.</small>		\$16.95	
Wildflowers of the South Coast		\$6.95	
Wildflowers of the Stirling Range		\$6.95	
Wildflowers of the South-West Forests		\$6.95	
Wildflowers of Shark Bay		\$6.95	
Wildflowers of the Mid West		\$6.95	
Threatened Wildflowers of the Mid West		\$6.95	
Wildflowers of Dryandra Woodland		\$6.95	

SHIPPING AND HANDLING CHARGES – ADD
1–2 items...\$4.00
3–4 items...\$6.50
5–10 items...\$12.00
11 or more items...\$15.00

PRODUCT TOTAL	\$
Shipping and handling	\$
International orders add \$10 per address	\$
Express orders add \$5 per address	\$
ORDER TOTAL	\$

***Postage calculator for WA 2014 Calendar**

Based on Australia Post pricing April 2013. Prices subject to change.

Calendars to the same address within Western Australia

1 calendar – add \$3.55 (large letter) 2 calendars – add \$9.85 (parcel) 3 or more calendars – add \$10.75 (parcel)

(Calendars to different addresses within Aust. add \$3.55 per calendar)

Outside Western Australia but within Australia

1 calendar – add \$3.55 (large letter) 2 calendars – add \$13.60 (parcel) 3 or more calendars – add \$15.75 (parcel)

(Calendars to different addresses within Aust. add \$3.55 per calendar)

Outside Australia add \$14.20 per calendar

offer expires 28/02/2014

20130220 1013 7M

Right A typical defence pose of a Mygalomorph trapdoor spider.
Photo – Jiri Lochman

Below right Barbara and her husband Bert in 1990.
Photo – George O'Neill

shoeboxes, feed caterpillars—that was great fun—and dry specimens and pin them with my mother's sewing pins."

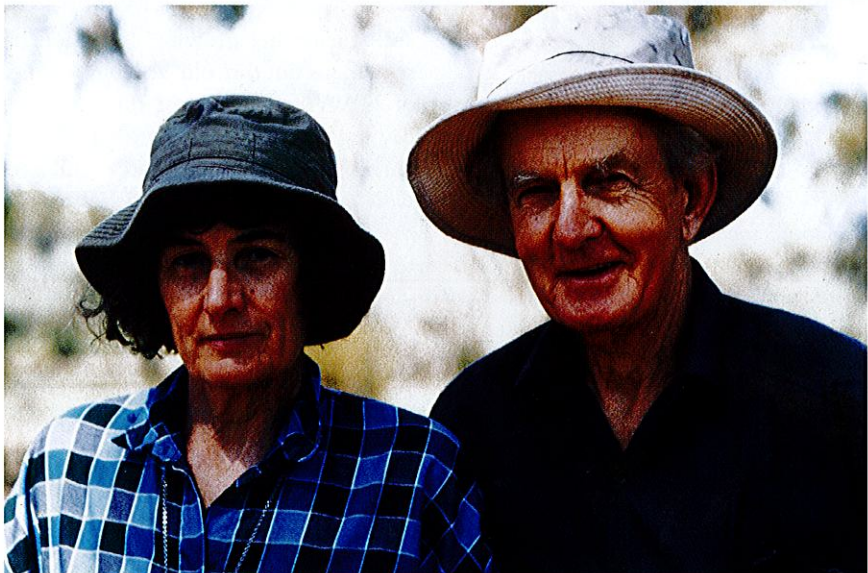
Her family was bemused by Barbara's passion, and tolerated it. "I don't think they'd seen anyone so dedicated before," she says.

Barbara's other passions were reading and writing. As a correspondence student she was required to pen fortnightly letters to her teacher, in which she poured out tales of her adventures, her discoveries in the world beyond the classroom. The teacher encouraged her interest, sending her natural history books to further fire her imagination.

Barbara remembers one book from her household shelves—a children's natural history book by Gladys Froggatt, *The World of Little Lives*—that really captured her attention. She pored through the pages, enchanted by the illustrations, fascinated at the life histories of these tiny creatures. Here was a world of infinite wonder, of bizarrely fashioned creatures with all sorts of fantastical traits. Barbara couldn't get enough of them.

A career begins

When Barbara reached her teenage years she moved to Northam where she boarded with a local woman while attending high school. It wasn't long before the landlady recognised the depths of Barbara's passion for nature and the miniature world of insects, and put her in touch with someone who shared her love—the local train driver Chris Jessup. Barbara has fond memories of weekends spent with the Jessup family, having picnics in the bush and discovering more about the natural world around her. She also felt immense satisfaction at the recognition of her interest as something to be supported, rather than merely tolerated.



And it wasn't long before Barbara had decided to dedicate her career to the study of nature's smaller creatures.

Barbara embarked on a science degree with UWA, eventually completing an Honours degree in zoology, working as an entomologist with the Department of Agriculture during holidays, and completing a thesis on the crustaceans that inhabit ephemeral ponds. Following her studies she was appointed as an assistant lecturer at the University of Otago in Dunedin, New Zealand. While she relished this opportunity there was a certain ex-serviceman she'd attended university with that lured her back home—her future husband Albert, or Bert Main.

Together Barbara and Bert became a formidable team in the Western Australian world of natural history studies. They travelled together for work—to the east coast, America and Great Britain. Barbara remembers weeks spent in the field, Bert working on frogs while she concentrated on what was increasingly becoming her area of expertise—trapdoor spiders (suborder Mygalomorphae).

"They were really terrific days," she says. "I loved being in the bush, the camping, but also having the work we were doing being appreciated," she says.

Mark Harvey also has fond memories of life in the field with Barbara. "I was always amazed by what



Above Barbara York Main.
Photo – Marie Lochman

Below right Barbara in Wongan Hills
around 1975.
Photo – Barbara York Main collection

she could see, and how she could find the trapdoor burrows,” he recalls.

“I remember being on a field trip with her and being challenged to see if I could see the burrows she had already spotted.

“And I remember she’d always stop for morning tea. No matter what we were doing she’d pull out the thermos and the camp table and we’d stop for a cuppa, which suited me perfectly.”

Barbara soon authored several books—the pocket guide *Spiders*, published in 1964, the natural history book on the Wheatbelt *Between Wodjil and Tor* in 1967, a book on people and their response to the landscape *Twice Trodden Ground* in 1971, and the reference book *Spiders* published in 1976. These were written in addition to the countless papers she has penned over the years.

In between research, field trips, overseas work and book production Barbara also found the time to rear three children. Her first, Rebecca, spent her second year in the UK while Barbara completed a fellowship from the Federation of University Women. Her second child Gilbert, and third Monica, were raised back in Australia, Barbara working from home

and storing her growing collection of specimens in the old zoology rooms of UWA—a pioneer of the modern-day juggling act of balancing work and parenthood. When all three children were at school, Barbara was back in the lab at UWA, where she continues to work today as an adjunct professor.

World of infinite wonder

After decades of work in the field, Barbara never tires of her subject. She says the extent of biological surveys being conducted these days continues to unearth new species of trapdoor, and reveal new information about the creatures that have her so fascinated.

“Trapdoors have become something of a target species in the biological surveys—they are ground dwelling, sedentary and they don’t disperse like other spiders so they have a very narrow distribution. If you damage a trapdoor spider habitat you could lose an entire species,” she says.

“And there are lots that are still to be named. When I started even some genera were unnamed.”

Barbara herself has discovered so many new species of trapdoor spider that she can’t remember how many she has made new to science.

And for many years her work as a consultant meant she was the person to go to when spiders discovered during biological surveys needed identification. She also has acted as a mentor to countless students.

Future

While Barbara now rarely does consultancy work, she certainly hasn’t stopped working. Her role as an adjunct professor with UWA’s School of Animal Biology ensures she is often at her desk, writing up taxonomic notes on years of past studies.

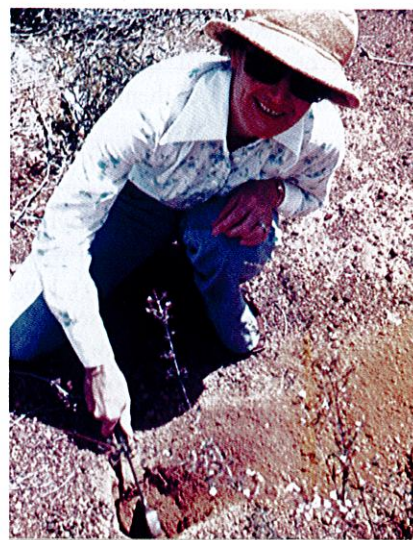
“I’m also writing a paper on a population of *Gaius villosus* in the Wheatbelt,” she says.

“I had only planned on studying them for 20 years but some of the cohorts I’d pegged went on well past this timeframe—there’s one spider still going that will be 40 years old this year.”

It was this study that so impressed Mark Harvey when he visited the Wheatbelt with Barbara years ago.

“She really is a lovely lady—very knowledgeable, very forthright, and knows an incredible amount about spiders, as well as the WA landscape as a whole. Her knowledge of the whole landscape was something that really amazed me.”

And you can bet we will continue to be amazed as Barbara works on publishing still more scientific papers. For, as long as Barbara is still working, you can rest assured that we’ll learn a lot more about the world of the trapdoor spider.



Samille Mitchell is a Department of Parks and Wildlife feature writer and *LANDSCOPE* editor. She can be contacted on 0407 998 721 or by email (samille.mitchell@dpaw.wa.gov.au).

- 55 People in profile: Barbara York Main
The name Barbara York Main has become almost synonymous with trapdoor spider research in Western Australia.
- 59 Science, a weed and cat control
Scientists investigate reports of cats chewing on a weed and lapsing into a drug-induced stupor, and look into how it could aid feral cat control efforts.

Regulars

- 3 Contributors and guest columnist
- 54 Bookmarks
Common Trees of the South-West Forests
A Natural History of Australian Bats: Working the Night Shift
Foresters of the Raj
- 30 Feature park
Shannon National Park
- 53 Endangered
Milky emu bush
- 62 Urban antics
Swan song

Publishing credits

Editors Samille Mitchell, Joanna Adele, Mitzi Vance, Karla Graham.

Scientific/technical advice Kevin Thiele, Lachie McCaw, Keith Morris.

Design and production Gooitzen van der Meer, Lynne Whittle, Tiffany Taylor, Natalie Curtis.

Illustration Gooitzen van der Meer.

Cartography Promaco Geodraft.

Marketing Cathy Birch.

Phone (08) 9334 0296 or fax (08) 9334 0432.

Subscription enquiries

Phone (08) 9219 8000.

Prepress and printing Advance Press, Western Australia.

© State of Western Australia
December 2013

All material copyright. No part of the contents of the publication may be reproduced without the consent of the publishers.

Maps should be used as a guide only and not for navigational purposes.

ISSN 0815-4465

Please do not send unsolicited material, but feel free to contact the editors.

Published by the Department of Parks and Wildlife (DPaW), 17 Dick Perry Avenue, Kensington, Western Australia.

Visit DPaW online at www.dpaw.wa.gov.au.



Department of Parks and Wildlife

