



Darwin's legacy

Biologist has written a book about the next generation

By SUSAN L. RIFE

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Tim Berra was an avid reader as a child, and knew from an early age that he'd be a biologist when he grew up.

"I read all these adventures, travelogues, William Beebe, 'The Voyage of the Beagle,' this incredible adventure around the world of Darwin as a young man," said Berra, a winter resident of Anna Maria Island who describes himself as an "Ohio State University professor and three-time Fulbright Scholar to Australia who works on weird Australian fishes and writes books about Charles Darwin and his family."

His latest book, "Darwin & His Children: His Other Legacy," will join a library of 16,000 volumes he hopes to eventually donate to Darwin University.

"The university there would benefit so much more than Ohio State," he said. When he's doing research in Australia, he misses those thousands of volumes.

"I need this stuff," he said.

The new book came about after he wrote a biography of Charles Darwin titled, "Charles Darwin: A Concise Story of an Extraordinary Man," timed to

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DARWIN & HIS CHILDREN: HIS OTHER LEGACY. By Tim M. Berra. Oxford University Press.

the 200th anniversary of the English naturalist and geologist whose name now is inextricably entwined with evolutionary theory.

"That got me interested in researching his 10 kids. All the other works about Darwin mention his kids as they are born, but they're about Charles," said Berra. "I took each child and researched him or her from birth to death. I was not really aware of who these people were and what they did. There were some rather remarkable children he produced."

Charles Darwin was married to his first cousin, Emma Wedgwood, of the Wedgwood pottery family, in 1839. They had 10 children, three of whom died in infancy or childhood, including his first daughter, Annie, who died at age 10 of tuberculosis.

"This devastated Charles," said Berra. "He never got over it until the end of his life."

Three of the Darwin sons went into the sciences, including George, an astronomer and

mathematician who for several decades was the world's foremost authority on the earth, moon and sun; Frances, "who virtually invited the field of plant physiology and raised botany from a sort of handmaiden of medicine into a science in its own right;" and Horace, who founded the Cambridge Scientific Instrument Company. All were elected Fellows of the Royal Society and were knighted, "an honor that escaped Charles," said Berra. "He was too controversial for Queen Victoria."

Firstborn son William became a banker who managed the financial affairs of his parents' wealthy families for 40 years.

Daughter Henrietta became her father's secretary and editor and ultimately gathered her mother's writings and wrote a biography of her mother.

The last child in the family, Charles Waring, was a change-of-life baby born when his mother was 48, five years after his closest sibling. The baby was born with Down syndrome and lived only 18 months.

Berra is also fascinated by the impact of consanguinity on Darwin and his children, with

three papers on the genetics of the Darwin-Wedgwood family posted on his website, www.mansfield.osu.edu/faculty-and-staff/websites/tberra.html

The field of genetics was unknown to Darwin in the 19th century, but Darwin was often ill, as were his children.

"In consanguineous marriages, the offspring tend to be more susceptible to bacterial infections. There is reduced fertility in consanguineous marriages... compared to other Victorian families of the same status, there is a deficit of offspring in the Darwin line," said Berra.

Of the seven children who survived to adulthood, six married. Only three had children, and only George Darwin, born in 1845, perpetuated the family name.

Berra said he didn't develop any favorites among the Darwin children.

"Each of the stories were so interesting and difficult that I wouldn't want to pick a favorite," he said. "I was learning the whole time I was doing this and I loved it. Even if I never published it, it was worth doing. As a family, it's a remarkable group."