The Story of Maria Merian

Written by Ashlee Klemm
Illustrated by Anna Speshilova
“Maria! Dear Maria!” echoed the voice of young Maria’s mother, calling for her daughter into the evening-lit summer garden when, from among the heads of cabbage, she spotted some movement and a faint light. “Maria, is that you?”
Up sprang Maria, a girl of thirteen years with wavy brown hair, freckles, and dirty knees. She had a small net in one hand and a candle in the other. Maria had been catching moths and beetles so that she could look more closely at them.

“Mother, you won’t believe the beautiful creature I saw! To fly, it uncovered four wings that it seems to keep hidden under pieces of brightly colored armor. I wish I knew what to call it.”
Maria thought insects were incredible. Why were they all so different? Why did some fly while others only crawled? And where did they come from?
“Maria, you must come in now. Your uncle is here with something for you.” Maria’s uncle was a silk manufacturer. He knew of his niece’s interest in insects and had an extraordinary surprise for her. Through the window he could see her coming inside, so he pulled a small wooden box out of his bag and held it behind his back.
“Uncle! I’m so happy you have come to visit. I can’t wait to tell you about the colorful little creature I saw crawling on the cabbage. It had six legs AND four wings.”

“Maria, that sounds very interesting, but first, I have a gift for you.” He presented the box to her and watched her eyes light up like fireflies in the night. She knew that only one thing was kept in boxes like that.
“Really? For me?” Maria gently took the box in her hands and opened it with bated breath. Inside were several tiny black caterpillars no bigger than dandelion petals. They were on a bed of mulberry leaves. “Silkworms! Oh, Uncle, thank you so very much! I love them!”
“Henri!” Grandmother called. “Jean-Henri! Time to come inside. The wolves will be coming down from the hills any time. Come in for some supper!”

Henri had been watching a dung beetle roll its treasured ball of dung clear across the farm. Henri was amazed at the beetle—how it sometimes tumbled with its ball of dung but held on and rolled with it. Most of the time, the beetle was head down, pushing the brown ball with its hind legs. Sometimes the beetle would stop and climb on top of the ball and look around, it seemed.

“What is it doing?” little Henri mused.
“Henri!” Grandmother called again. Five-year-old Jean-Henri Fabre ran into the small French cottage where he lived with his grandparents from 1829 to 1832. They had taken him in because his mom and dad were very poor and struggled to find work to feed their family.

The fireplace was warm and filled the small cottage with light as the sun went down. Grandmother’s bacon-turnip soup and hot loaf of rye bread filled the cottage with the happy smell of a good meal.
Grandmother was always hard at work. Every night after dinner, she pulled out her tools, called a distaff and spindle, to spin wool and flax fibers into yarn. Sometimes she sat with her knitting needles, making a warm sweater, hat, or mittens. As she worked, she told tales of dragons and their lairs high up in the mountains. She told real-life stories of wolves on the farm and how the brave sheep dogs and donkeys protected the sheep.
Each day Henri’s job was to feed slop to the pigs. They snorted and snarfed up everything he dumped into their pigpen!

Grandmother let Henri help her milk the cow. “Henri,” she said one day as they finished milking, “today you will help me shear the sheep.” Henri helped by picking up the falling wool and putting it into a sack. Then they washed the wool and hung it out to dry.

Henri did not mind the hard work because most of it was done outside. He loved to feel the sun on his face, to hear the birds in the trees. Often he watched the grasshoppers hop from leaf to leaf. His eyes followed butterflies on their secret journeys.
At his grandparents’ mountain cottage, Henri was the youngest child for miles around. No neighbors lived close by. When he wasn’t helping on the farm, Henri entertained himself outside in the wonderful world of insects and forest critters. He loved to watch them; he was amazed by their colorful wings and bodies, their long legs, pincers, and antennae. He watched the ants in their red armor carry bits of food in long, long lines, finally arriving at their home and filing into the mound of dirt, one by one.
He sat for hours and watched a spider spin its delicate web, moving expertly over the tiny strings that came from its own body. For days in a row, he returned to the spider to see if it captured any food in its web.

Once, upon returning to the web, Henri saw a fly get stuck on the sticky threads. He watched as the spider stunned its prey and then covered it with layers of silky string.
One day after Henri turned seven years old, Grandmother announced that he would be returning to the home of his parents to attend school. The schoolhouse was a one-room building with a huge fireplace and a loft. The room also served as a bedroom, a kitchen, a hen house, and a pigpen.

Henri’s favorite things about the one-room school were the dozens of little colorful pictures that covered nearly every inch of the walls—paintings of princesses, kings, pirates, flowers, and children playing in a brook. They all delighted Henri.
The teacher of the school had many jobs. Besides being schoolmaster, he was also the town barber; the bell-ringer (for weddings and other big events); the caretaker of the village clock (he had to climb up a tower every day to wind the huge clock); the director of harvesting the hay, walnuts, apples, and oats; the caretaker of an old castle; and he was also Henri’s godfather. He was a very busy man and did not have a lot of time for teaching. Henri enjoyed the pigs and hens, but he was not able to learn much at school.
At the home of his parents, Henri had a small nook by a window that was his own little space. Under the window was a wooden shelf where Henri kept a hatbox full of small treasures—colorful rocks, butterfly wings, beetles, pretty leaves, and sticks carved into animals.

Henri preferred to be outside, but on days when he had to stay in, he sat on his stool by the window, looking out over the village. He would handle his treasures and make up stories, each item playing a different character.
FIDDLER CRAB

By MARY ADRIAN
Illustrated by Jean Martinez
A NOTE ON THE ILLUSTRATIONS. In the underwater illustrations, the minute plants and animals have been drawn larger than their true relative scale in order to make their details visible. Many of them are actually much smaller in relation to the zoea.
Fiddler crabs are the most numerous of all crabs. Many species inhabit the sandy beaches, the mud flats, and the river mouths of nearly all our seashores, from Massachusetts to Florida to Texas, and from California to Washington.

The most common of the sand fiddler crabs, Uca pugilator (Bosc), which is either purple or green, is the subject of this story.

Familiar as all crabs are, they are rarely seen in the larval stage, for then, like plankton, they are part of the drifting life of the surface waters of the sea. I have emphasized this stage of development to give the young reader a picture of that strange, fascinating water world. There, as weird, minute monsters, the crab larvae struggle to survive, in company with the larvae of other shellfish and with countless millions of one-celled animals and plants.

The habits of crabs vary greatly with the species, but their metamorphoses are essentially alike. Consequently, the life cycle of this sand fiddler crab can stand as the archetype for all crabs.

I am indebted to Dr. John C. Armstrong, Assistant Curator of Invertebrate Zoology of the American Museum of Natural History, for checking the manuscript for scientific data.

Mary Adrian
Darien, Connecticut
Purple Buttons

It was a warm evening in spring. A red glow rippled on the waters of the sound. It spread over the sandy beach and the marsh grass growing along the high tide line.

The tide was going out. Each small wave broke farther away from the marsh grass and left a little ridge of sand behind.

All along the beach, in hundreds of little places, the sand began to crumble. Something was breaking through.

It was fiddler crabs.

They were digging themselves out of their holes, where they had stayed while the water covered the beach.
Out they crawled and then stood still.
They were purple and about the size of jacket buttons. Their eyes were at the ends of two long stalks and looked in every direction—sideways, backward, forward.
They saw no birds nor other enemies on the beach, only a worm crawling to the water and mud snails hunting for food.
The crabs knew the waves were leaving food in the sand ridges—their food. They would go
hungry if the snails got it. So the crabs scurried down toward the water, speckling the beach with their tiny purple shells.

They walked sideways because their legs could not step straight ahead but only out from the side. Their legs on one side pulled, while those on the other side pushed.

The males ran and stopped wherever they found food.
THE EGG

The females walked slowly. They were carrying thousands of eggs stuck to their abdomens.

All day they had hidden in their holes because they could not run from enemies. Now, in the twilight, they felt safe.

They walked over shells and bits of seaweed. They walked around a dead squid and pieces of driftwood and other things that had been washed ashore.

They passed the feeding males and waded into the shallow water.

The tide was still going out. The red glow
was fading. Even their enemies, the fish, could not see them now.

Then the females flapped their abdomens up and down, washing their eggs.

The eggs that were ready to hatch popped open and shot the larvae into the water. The larvae were transparent and so tiny and so many that they looked like white smoke puffing out.

Then the females ate and afterward went back to their holes near the grass.