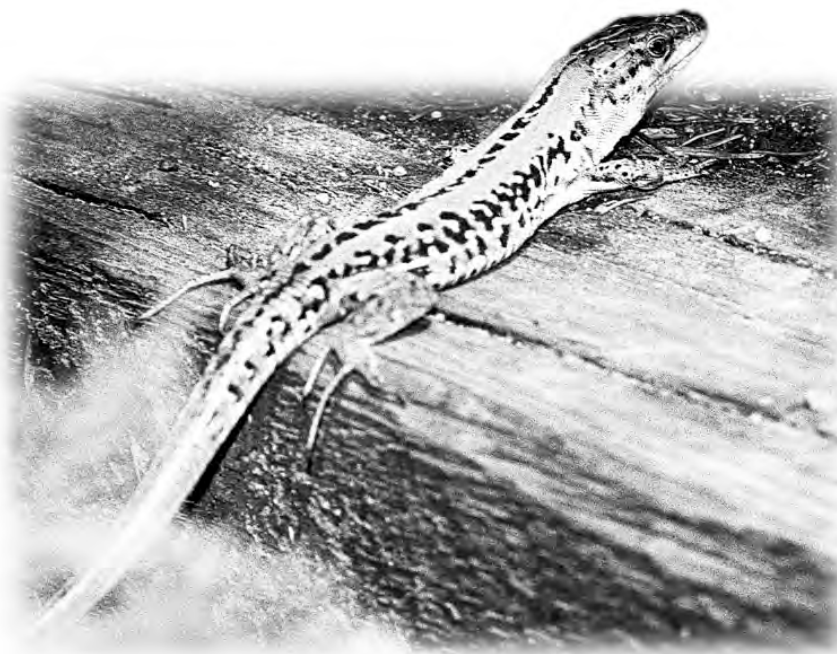




The Lizard King

The Island's only such species, the Italian wall lizard rules the roost — and imaginations of its hosts



By Bryn Nelson
STAFF WRITER

Two years before astronauts walked on the moon, a few dozen colonists took their first small steps onto another foreign landscape. The exact details are lost to legend, but the settlers soon discovered that Garden City wasn't such a bad place to land.

For a lizard.

Various tales have sprung up to explain the emigration of a small group of wall lizards from the north of Italy to the suburbs of Long Island. The most likely story involves a 1967 shipment destined for a now-defunct pet supply store that was waylaid by a minor accident, a broken crate and some very swift escapees.

No one knows for sure how many of the cold-blooded reptiles are now basking in the sunshine of suburbia. But they have adapted remarkably well to their adopted homeland, and they've extended far beyond Garden City.

As in their native precincts of Italy and southern Europe, the lizards are thriving in landscapes shaped by humans, in pockets of Nassau County as well as in Queens, Brooklyn and the Bronx. A diet of spiders and crickets and other small invertebrates, a sunny spot to provide warmth and aid metabolism, a haven in the cracks and crevices of walls and gardens — all are abundant here.

The lizards have proliferated along the grassy corridors of railroad tracks, drainage ditches, and power lines. Others have likely hitched rides to new homes in the pockets of admirers, or even in piles of mulch.

"I'm sure there are tens of thousands, and they're spreading fast," says Hofstra University herpetologist Russell Burke.

Despite the advance, the tale of New York's Italian wall lizard population has not followed the familiar plot line of an invasive species wreaking havoc on the natives. Long Island has no lizards of its own, and the wall lizards seem to have filled an environmental niche that was previously vacant. As far as anyone can tell, they have yet to cause any harm.

Instead, their impact is perhaps most apparent in the childlike wonder that follows in their wake. A biologist laughs at their antics in a nursery school garden. A father eagerly maps their spread. Children clamor to glimpse them on a playground.

Sometimes nature's lessons come in unexpected ways.

Burke has picked a warm September day for fishing, though his black fishing pole seems strangely out of place among impatiens and ornamental shrubs. The small noose dangling from the pole offers another suggestion that this will be no ordinary fishing expedition.

Burke is after the wall lizards, a source of both academic research and personal fascination. He has conducted many of his field studies here, in the three-tiered side garden and spacious backyard of the Garden City Nursery School.

At first, the garden appears deserted. Then a single lizard scurries across a railroad tie retainer and behind a small evergreen shrub. Within seconds, the creatures known as *Podarcis sicula* are everywhere. Grass-green backs. Mottled black and brown pat-

terns with turquoise spots on either side. Basking on ornamental rocks, guarding bits of territory, surveying the scene from the safety of cracks in the garden's lower echelons.

With a fisherman's patience, Burke moves the noose ever closer to the head of a wary lizard. A quick jerking motion and he's made his first catch of the day, a 5-inch-long juvenile male with a dull green back, caught harmlessly around its head.

Burke paints the lizard on each side with a red marker, just as he's marked others with identifiable combinations of blue or black or green. His next catch — a 7-inch-long adult female with a typically narrow head — receives two red blotches on each side.

After another few minutes, he's caught the one he's been after all day, an elusive adult male that measures about 8 inches in length and has his own territory near the far end of the garden. The lizard promptly rewards Burke's efforts by biting him.

"Oh, that's enough of a pinch to hurt." He laughs as the lizard glares at him.

The herpetologist points to a row of scales where the lizard's hind legs intersect its abdomen, a region identifiable on males by a brown spot. It's from the femoral glands here that the male secretes its distinctive pheromone, a chemical calling card of sorts.

"It's probably like, 'I'm a big tough guy and this is my territory,'" Burke says of the scented message. A male lizard basking in the sunshine to regulate his body temperature and synthesize Vitamin D also may be marking his territory as he lays flat against the railroad ties, but Burke can only speculate.

The big male gets two blue marks on each side.



Newsday Photos / Bill Davis

A wall lizard at Garden City Nursery School is lassoed by herpetologist Russell Burke.

LIZARDS ON THE LOOSE.

Follow the story of the Italian wall lizard on Long Island with an interactive timeline, learn how to report sightings, and see video of them at www.linature.com.





This temporary labeling system will help Burke study how the lizards feed and mate, and how they defend their territories. Some have done so for seven years or more — a ripe old age for a lizard.

He has already determined that they are almost genetically identical to one another, a hallmark of a population founded by a few individuals. Yet the New York settlers are, surprisingly, free of common parasites such as lizard malaria, and are reproducing even faster than their closest genetic kin in Italy.

The Italian group remains active year-round, but their New World cousins stop virtually all activity in the winter. Since Burke has discovered that the lizards cannot tolerate freezing temperatures, he would like to answer the question that's been nagging him for years: How do they survive the winters?

In Topeka, Kan., Larry Miller wonders the same thing. Related lizard species have ventured into Cincinnati and Victoria, British Columbia, and observers recorded a colony of Italian wall lizards in Philadelphia that petered out several decades ago. But active populations of the creatures also known as ruin lizards now inhabit only two known regions of North America: Long Island and Topeka.

Miller, a biology teacher at Topeka's Northern Hills Junior High School, also is mystified as to how they behave during the coldest weather. He hopes to answer some of the lingering questions by establishing a lizard study area near his school.

"I've been teaching science for about 30 years," he says, "and they're one of my best teaching tools."

Again, the details of the Topeka introduction are somewhat hazy, but a pet supply store and an absent-minded owner figure prominently. Miller estimates the lizards have expanded at least a quarter of a mile in all directions from their suspected release site in the late 1950s.

"They've moved in well and they're an animal that has managed to fill a niche that was created by humans," he says. Their urban success story is perhaps best documented by Topeka's prime lizard vantages: outside an auto parts store, a KFC restaurant and a Dimple Doughnuts shop.

It's about three-tenths of a mile from Long Island's Hempstead Turnpike to the generally agreed-upon point where the store-bound lizards made their escape — a site known to a few enthusiasts as Ground L. This stretch of Cherry Valley Avenue runs past ball fields, a bus depot and the municipal yard of Garden City.

The village's composting program at the municipal yard delivers rich black mulch to golf courses, recharge basins and residents, all of it free of charge. The "black gold" is full of nutrients, and lizards, who may be getting a free ride across the county.

Just down the road, the village's community park includes three landscaped pools, a miniature golf course, and other favorite spots for lizard-catching. A wall lizard has escaped on more than one occasion by relinquishing its twitching tail to the sweaty grasp of a young pursuer, a defense mechanism that also helps it evade cats and birds. The loss is only temporary, however. The lizard will soon grow another tail.

Nestled between the community park and the mulch piles lies lizard paradise — the 1-acre site of the Garden City Nursery School, which has harbored the creatures for more than two decades.

"They became such a fascination to the children and parents and teachers that the curiosity just increased tremendously," says school director Ann Amengual.

The lizards have since become the school's unofficial mascots. A green lizard thermometer commands a prominent position on a pillar by the entrance, the parents have produced several versions of lizard T-shirts for the children, and even the school's board has gotten into the spirit.

"We have a tradition now where the outgoing president gets a gold lizard pin," Amengual says.

Springtime at the school arrives with the wall lizards. "Science for young children is not about learning facts, but it's about stirring curiosity and learning about their life and their world," Amengual says. "That's what happens here. It's con-



Hofstra University's Russell Burke hoped that tiny transmitters, outfitted onto Italian wall lizards such as the one above, would reveal the lizards' mysterious winter hideaways.



Allison Goodman, a junior at Merrick's Mepham High School, uses a receiver to practice tracking the lizards' movements at the Garden City Nursery School.

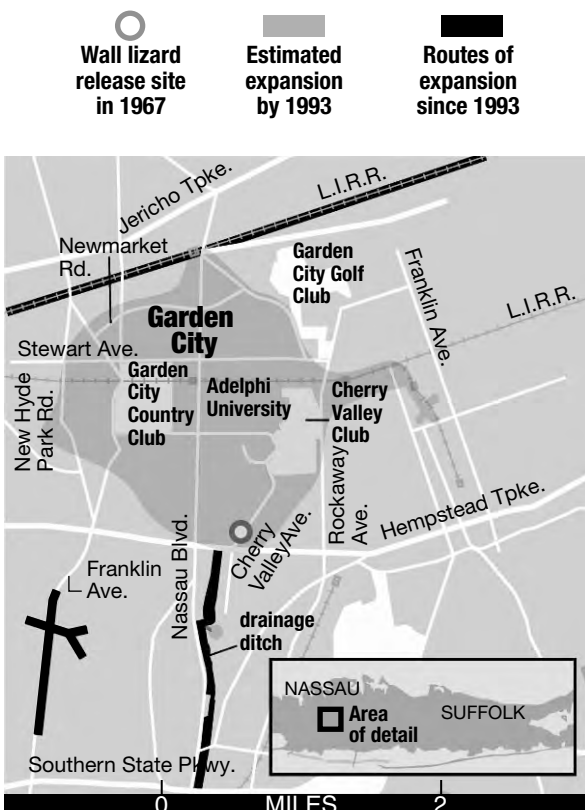


Budding herpetologists search for a wall lizard at the Garden City Nursery School. From left, Max Zebrowski, Timmy Gormley and Anthe Shulman

Newsday Photos / Bill Davis

Lizard's Breadth

Since the accidental release of a few dozen Italian wall lizards in 1967, the population has added thousands of descendants and claimed new territory in Nassau County and beyond.



They've been seen here, too

From 1967 to 1993:
Nassau County
 Floral Park area
Queens
 Queens College

From 1993 to present:

Nassau County
 Planting Fields Arboretum
 Leeds Pond Preserve
 Lawson Boulevard in Oceanside
 Along the LIRR tracks from Garden City to Westbury
 Echo Pond Park and along its drainage ditch running north into Franklin Square and south into Lynbrook
 Clark Gardens in Albertson
 Hofstra University

Carle Place Water District
 Newbridge Road Park in Bellmore
 Garden City Bird Sanctuary

Queens
 New Calvary Cemetery
 Mt. Zion Cemetery
 Mt. Olivet Cemetery
 Lutheran Cemetery
 Queens College
 Mt. Hebron Cemetery
 Jamaica Bay Wildlife Refuge

Bronx
 Bronx Zoo
 Bronx Botanical Garden

Brooklyn
 Brooklyn College
 Cypress Hills National Cemetery
 Machpelah Cemetery

See LIZARD on N20



The Lizard King

LIZARD from N4

tagious — everyone loves these lizards.”

Rob Alvey's love affair with the lizards began in 1985. As a teenager in the summer of '68, he had mowed the school's lawn, but it wasn't until he returned as a parent that he first saw them. Lots of them.

The collector of more than 10,000 frog-related items soon found room in his life for yet another small green creature. Alvey, a geologist, even got his daughter involved in an early tracking project using color-coded beads sewn onto the back of each lizard.

When he was appointed to the Garden City Environmental Advisory Board in 1992, Alvey promptly launched a project to trace the background of the lizards. In 1993 he appealed to residents to help him track the reptiles by reporting sightings. Thanks to the Garden City Lizard Watch, he was able to map their expanding range and estimated that they were advancing by a block to 1½ blocks every year.

“I was concerned whether this was a good thing, a dangerous thing,” he recalls. “And the more I learned, the more I discovered that this is not something that we need to worry about.”

At his home in Garden City, Alvey unfolds a rumpled map of the New York City metropolitan area on his dining room table. With a green highlighter, he marks some of the other known colonies that have radiated from Garden City: Planting Fields Arboretum. The Carle Place Water District. Mount Hebron Cemetery in Flushing.

In 1994 Alvey introduced four lizards to another one of his projects, the Garden City Bird Sanctuary near his home. Now, they abound throughout the 9-acre site. “They're prolific,” he says. “They have a natural Viagra in them somewhere along the line.”

Another lizard aficionado, Queens College associ-

ate biology professor Jon Sperling, remembers collecting lizards of his own at the Garden City municipal yard 12 or 13 years ago.

Perhaps not coincidentally, separate colonies have thrived at his home in Floral Park and at Queens College for the past 12 years. Unlike many of the students, the campus lizards prefer to hang out by Rosenthal Library, where they dart among the prostrate red cedar planted on an incline near the entrance.

“You can see them sunning themselves either on the plants themselves, or on the decor on the incline and on the stairway,” Sperling says.

He has integrated the lizards into some of his lessons, asking students whether they've noticed them. Many haven't.

“It's a matter of observation,” he says. “People could live next to them all their lives and not see them. Some people are blind to things like that.”

In the winter months, few New Yorkers have seen the lizards. One of the few exceptions was when a Long Island homeowner spotted several huddled together beneath a lifted slab of sidewalk.

Last fall, Burke designed a project for high school student Allison Goodman to find out where Italian wall lizards go when the temperature falls below freezing. But neither electrician's tape nor glue held his tiny radio transmitters in place, and the mystery remains — at least for another year.

Despite an unseasonably warm afternoon that bathes the nursery school's garden in light, the wall lizards refuse to stir from their seclusion on St. Patrick's Day. But the following afternoon, a few emboldened members of a colony residing in the Hofstra University greenhouse venture into the adjacent yard to enjoy the sunshine. By the next week, a few more make brief appearances near the biology building at Queens College. They begin showing up in scattered yards around Garden City, and then at the nursery school itself.

At the far end of the school's garden, a midsized

lizard ventures out on a railway tie before its courage falters and it scurries between the cracks of the wooden tier. Then a tiny lizard with only a hint of green on its back makes its afternoon debut — a summer hatchling with spring fever. But its day in the sun is quickly curtailed by an aggressor twice its size that is in no mood to share its garden fiefdom.

Amid the patchy afternoon sunshine and chatter of small children arriving for school, the wall lizards of spring have returned.

“I didn't see one, but I thought I heard one,” says a little girl with a blond bob. Her two friends quickly join her, shushing one another as they tiptoe toward the near end of the garden. Three pairs of feet shuffle around a bush and curious hands pry through the greenery, but no lizards turn up.

“I think we scared it away,” the little girl says as they head back inside. Moments later, the lizard reappears just where she said it should be, with a nearby cascade of ivy providing a hideout.

Later that afternoon, Burke and a pair of lizards join a group of schoolchildren for a session of show and tell.

Who's seen a lizard?

Hands shoot up and several kids have stories.

What eats them? Burke asks. Snakes? Cats?

“Lions,” offers a boy.

“Cheetahs,” says a girl.

For the afternoon lizard hunt, 18 young assistants peer into the garden, around the plastic border of the playground, between the cracks in the back fence. But the wall lizards, perhaps sensing the commotion, have apparently called it a day.

It doesn't matter. The lizards will be out again next week, and for many more weeks after that. Until cold weather forces a temporary retreat, they will be playing hide and seek, scampering across the fence ties and delighting a few dozen young naturalists eager to see, to touch, to learn the simple lessons that nature — and fate — have brought to their own backyard.