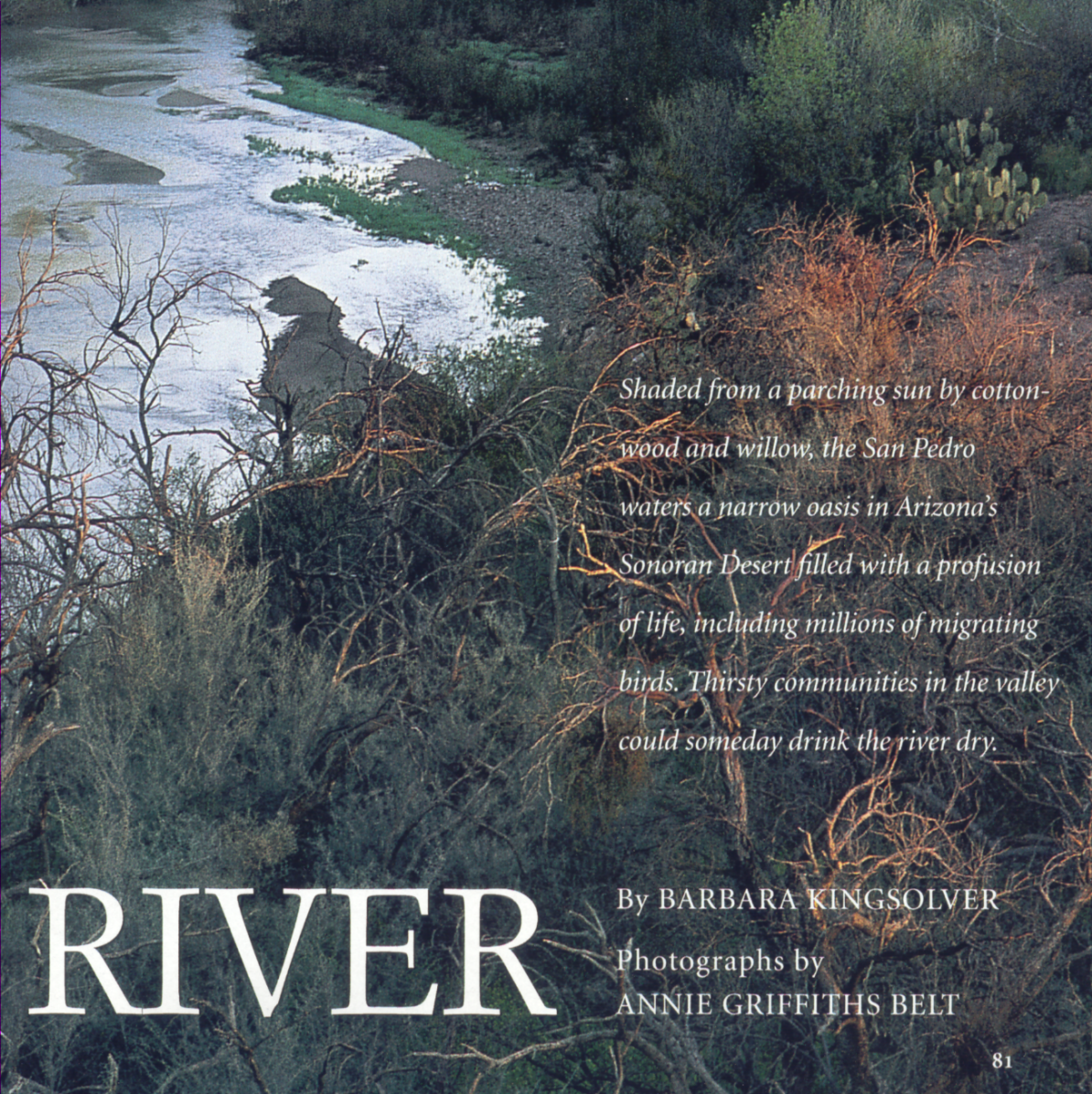




A SPECIAL PLACE

The Patience of a Saint

SAN PEDRO



Shaded from a parching sun by cottonwood and willow, the San Pedro waters a narrow oasis in Arizona's Sonoran Desert filled with a profusion of life, including millions of migrating birds. Thirsty communities in the valley could someday drink the river dry.

RIVER

By BARBARA KINGSOLVER

Photographs by
ANNIE GRIFFITHS BELT



HOT SPRINGS CREEK, MULESHOE RANCH COOPERATIVE MANAGEMENT AREA

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HEN I WAS NINE YEARS OLD, I jumped across the Mississippi. My family had sought out its headwaters in Itasca State Park, Minnesota, where a special trail showed the way for adventurers with this feat in mind. I took my leap reverently. My parents let me know this modest stream I'd taken in stride was actually one of Earth's great corridors, dominion of paddleboats and Huck Finn, prime mover of flood, fertility, and commerce across our land.

However we might long to re-create the landmark events of childhood for our own children, water passes on. You can't—as Heracleitus put it—step in the same river twice. Nowadays when my family sets out for a lesson in river, we drive southeast from our Tucson home to a narrow, meandering cottonwood forest where our kids may attempt to vault the San Pedro. They've done it often, and sometimes don't even get very wet. Where its headwaters cross from Mexico into Arizona, this river is barely three feet across. As it flows north across some 150 miles of desert, it rarely gets much wider. In the scheme of human commerce it's an unimpressive trickle. Mostly it's a sparkling anomaly for sunstruck eyes, a thread of blue-green relief.

In summer this modest saint invites us down from the blazing heat into a willow tunnel of cool shade, birdsong, and the velvet brown scent of riverbank. We take unhurried hikes, reading the dappled script of animal tracks and the driftwood history of flood and drought embedded in the steep banks. The sight of a vermilion flycatcher leaves us breathless every time—he's not just a bird but

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a punctuation mark on the air, printed in red ink, read out loud as a gasp. The kids dance barefoot between sandbars, believing they've found the Secret Garden. For the space of an afternoon we're sheltered from the prickly reality of the desert where we live. Most human visitors to the San Pedro appreciate it for about the same reasons they value gold: It sparkles, and it's rare.

From a resident's point of view, though, the price of gold couldn't touch this family home. For the water umbel spreading delicate roots in a lucid pool, the leopard frog peering out through a veil of duckweed, the brush-prowling ocelot, and the bright-feathered birds that must cross this hostile expanse of land or find a living from it, the San Pedro is a corridor of unparalleled importance. Nearly a third of the river's 150 miles and 58,000 acres of adjacent land have been protected since 1988 as the San Pedro Riparian National Conservation Area. The Nature Conservancy has named it one of Earth's Last Great Places.

To jump across this river with the right measure of reverence requires an animal frame of mind: 82 species of mammals—a community unmatched anywhere north of the tropics—inhabit this valley. Also hiding out here are 43 kinds of reptiles and amphibians, including the Ramsey Canyon leopard frog—a bizarre critter that calls (as if he knows it's a big, harsh desert out there) from underwater. The San Pedro harbors the richest, most dense and diverse inland bird population in the United States as well—385 species. It's one of the last nesting sites for southwestern willow flycatchers and western yellow-billed cuckoos; green kingfishers breed only here and in southern Texas. For millions of migratory birds traveling from winter food in Central America to their northern breeding grounds, there is one reliable passage on which life depends. Just this one.

I lead my children down its banks in the hope they'll come to recognize in the San Pedro the might and consequence of that splendid word, "river." Never mind that Huck Finn wouldn't have troubled himself to spit across it. As our girls stoop at the edge of a riffle, peering into the clear, fast water, my husband and I talk to them about heroic navigational feats undertaken not by paddle and steam but feathered wing. Our Tucson-born children are more accustomed to ephemeral desert streams that roar briefly after a storm, leaving behind bleached, stony channels that stay dry for weeks or months until the next good rain.

"This one never, ever dries up. Wow," our eldest observes. *(Continued on page 92)*



Flowing north out of Mexico, the San Pedro vanishes underground along intermittent stretches. In the San Pedro Riparian National Conservation Area, the forest is withering as wells near Sierra Vista tap into the river's subterranean sources.



BUTTERFLIES (*EUREMIA PROTERPIA*, LEFT; *NEOPHASIA TERLOOTII*, RIGHT), RAMSEY CANYON PRESERVE



RAMSEY CANYON LEOPARD FROG (*RANA SUBAQUAVOCALIS*), RAMSEY CANYON

DAMS AND CANALS have drained most rivers in the Southwest, leaving the San Pedro a slender refuge in a sere landscape at the crossroads of four ecosystems—the Sonoran and Chihuahuan deserts and the Rocky and Sierra Madre mountains. Conservationists



VERMILION FLYCATCHER (*PYROCEPHALUS RUBINUS*), NEAR BENSON



MEXICAN POPPY (*ESCHSCHOLTZIA MEXICANA*), NEAR REDINGTON

call the river valley a “biological treasure chest” because it holds one of the most varied collections of species in the U.S., including a frog that numbers fewer than a hundred adults (lower left) and birds that travel this north-south corridor during spring and fall.

(Continued from page 85) “There could be fish living in there.” Our youngest, meanwhile, hurtles toward the sandy shallows crying, “Clothes off!” This may or may not be reverence, but most children are good at the animal frame of mind.

Within the leafy protectorate of the conservation area, most of the river is flanked by a trail, and much of it we’ve walked, in sections as long as a Saturday and a small child’s legs. We hike northward with the flow, guessing the river’s intentions as it braids into sandbars and shallows. Sometimes it nearly disappears, but stands of young cottonwoods testify to permanent flow just under the surface. It’s more troubling to find a grove of old trees with no young ones at their feet; this means the water table, depleted by nearby wells, has dropped too far for saplings to take hold. If it continues to drop, eventually even the grandfather cottonwoods that constitute the backbone of this ecosystem won’t find moisture to sustain themselves.

When we stop to listen for the yellow-breasted chat in a thicket of Mexican elders or scan the water ahead for the greenish glint of a kingfisher’s wings—we have in the back of our minds, always, the health of this river. We visit the San Pedro as one visits a beloved, elderly relative. You don’t talk about the inevitable, but you think about it a lot.

Rivers like this were once common in the Southwest, with permanent flow supporting long corridors of cottonwood-willow gallery forest that netted the body of the Sonoran Desert like veins. Now, in a land bled dry by agriculture and population growth, only 5 percent of the original forest remains. Riparian species have become concentrated in disparate fragments of creekside habitat. The species list is impressive, but among many orders of animals and plants it’s not as long as the roll call of those that have perished quietly. (Of the 13 species of fish originally native to the San Pedro, for instance, 11 are gone.) Beavers used to dam the rivers into strings of marshy pools, keeping the water table high, but they were hunted out long ago. It’s no surprise to a desert hiker, anymore, to top a hill and look down on a ghost parade of giant, leafless cottonwoods snaking through the valley below, dying in place, marking a watercourse that has gone and won’t be back.



BLACK-TAILED JACKRABBIT (*LEPUS CALIFORNICUS*), NORTH OF BENSON

THE SAN PEDRO somehow perseveres. Scattered along its meandering course are artifacts of countless human encroachments, beginning with the Clovis people who arrived in this valley 11,000 years ago, when woolly elephants roamed our continent. Hunting these marshes and grasslands with flint-headed spears, the Clovis settlers established the most successful North American population archaeologists have found from that era. The Mogollon and Hohokam later built on their foundations but were gone by the time the Spanish arrived. After Coronado's exploratory party beat down this path in 1540, the San Pedro became the point of entry for Spanish settlers in the Southwest until Apache raids forced them to find other routes. Three centuries later pioneers from the East rushed to lay their claims to water sources as the only strategy for surviving here on an eastern bureaucrat's idea of a homestead allotment. One hundred sixty acres of desert will support a herd of pack rats, but not a subsistence farm.

With these homestead plots strung out like beads up the watercourse, though, and huge tracts of adjacent desert largely unoccupied, each rancher with a water hole had an effective claim on many thousand acres of rangeland.

Now the family cemeteries of homesteaders are tucked back among the trees, along with the crumbling adobe ghosts of boomtowns whose economies lived and died on mining. A roaring mill on the riverbank once pulverized silver ore hauled in by mule from nearby Tombstone. The river provided water for processing and a handy place to dump the toxic by-products. Now we explore these ruins gingerly, cautioning the kids not to climb on fragile walls or impale themselves on scrap iron as they try to spy pottery sherds and interesting junk. It's tempting to see these remnants as reassurance—to believe our own century's claims on the river will someday disappear just as gracefully into San Pedro's patient embrace.

But since the day Coronado first guided his horses through tall sacaton grass in this valley, skirting a marshy river that was hundreds of feet across, we've changed the face of the land almost unimaginably. Now the river is channelized between steep banks and so reduced that at one point, near the farming town of Benson, the entire flow runs through an irrigation sluice. It's a dramatic ecology lesson, largely wrought by the subtraction of just one native from the riparian community and the addition of one outsider: the beaver and the free-range cow.

Ranchers are testy about their claim here; it's a tough enough life they've inherited without city-bred environmentalists challenging their rights to graze and irrigate. But now, as the Sunbelt booms, farmers and environmentalists



GOPHER SNAKE (*PITUOPHIS MELANOLEUCUS*), GRAY HAWK RANCH

find their voices equally drowned by a new, louder demand from urban consumers. Historically, most of Arizona's water has gone to agriculture—80 percent at present, with the remainder divided between industrial and municipal use. But the state's department of water resources predicts that municipal consumption will double in the next 50 years. Much of the population growth is expected in southeastern Arizona, where the San Pedro flows.

The Fort Huachuca army base and burgeoning city of Sierra Vista flank the San Pedro, drinking up groundwater from an underground depression that's diverting and depleting the same aquifer that supports the river and its many forms of life. As the trees die, fingers point in every direction, for on a map this corridor resembles a patchwork quilt: ranchland, nature preserve, townships, and government grazing leases. A growing number of residents and environmentally minded Arizonans love this river for what it is, rather than for what they can take from it. Working together with organizations on both sides of the international border, their task is to fight against the clock to set pieces of the water table and crucial tributaries out of reach of human depletion. But a river doesn't flow in pieces. Migratory routes can't skip over private property, and a fish has little use for a river that runs 90 percent of the time.

In 1996 the San Pedro's troubles came to the attention of the Commission for Environmental Cooperation, newly created by NAFTA. A study of the crucial migratory corridor connecting Mexico, the U.S., and Canada was an appropriate first major undertaking for this trilateral effort at cooperative environmental responsibility. Its findings were unequivocal: At the present rate of consumption, human occupancy will dry up the San Pedro in a matter of decades. Capping municipal growth here, limiting irrigation, and closing Fort Huachuca would significantly extend the river's life, but the study concedes these are costly measures in human terms.

How is it possible to argue the San Pedro's case in a human tongue whose every word for "value" is tied to the gold standard of human prosperity? This blue-green slice of life, fiercely bounded on every side, will persist for all it's worth. To themselves and one another, these lives mean the world. But their delicate finned and feathered hopes are at this moment being weighed against thirsts beyond their ken.

This knowledge makes it harder, each time, to return to our beloved river, but impossible to stay away. We go back in every season now, not just for cool relief in summer but to witness the autumn migration of hawks and stand under trembling cottonwoods as they cast golden leaves from their white-skinned arms. In winter we kneel at the base of a bare, old netleaf hackberry to place our palms against its bark, feeling the mysterious rows of raised bumps that stipple the trunk like a manuscript in Braille. What can we read there? How long before the pages of this book peel and dry to dust?



AT THE END of our Saturday hike we leave the scent of mud and moss and find a path through dense elders into the sparser shade of mesquites and, finally, the end of the trail. In the parking lot we hesitate, finding that a vermilion flycatcher has taken a position in a branch above our car. He sits like a sentry with his puffed-out chest, sallying out suddenly to snap a mosquito from the air, then returning to his post. For several minutes we watch him from a distance, unwilling to intrude on a territory he's claimed so convincingly.

Eventually he dashes off, startled by a car that has bumped down the gravel off-ramp from the highway. A station wagon from Ohio. An elderly tourist climbs out, stretches, and takes a look around.

"What is this place anyway?"

"The San Pedro River," we answer, more or less reverently.

"A river," he says, casting a dubious eye on the cactus-studded hills around us.

"How big is it?"

We glance at each other, abashed for our river. Evidently this is a question we can't answer. "About three feet across" couldn't possibly be right.

As big as life, then. Just that.

