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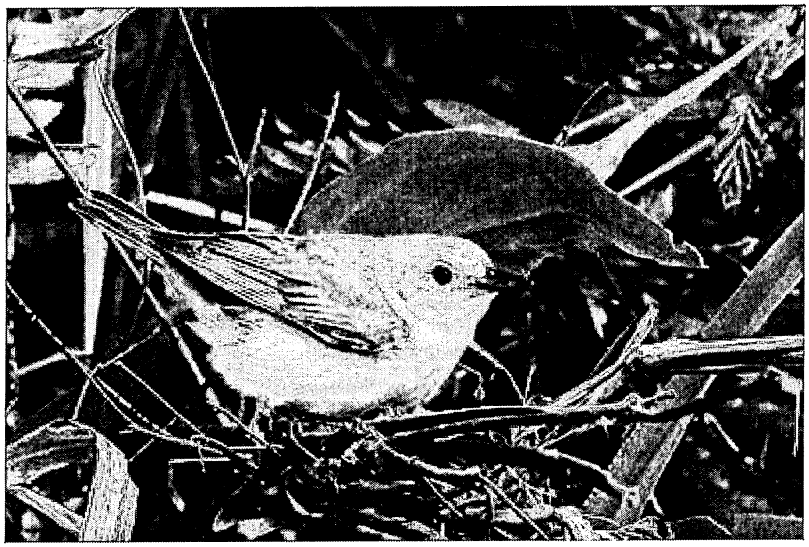
ESSAYS - A Walk Through A Flood of Song

by Richie Swanson



Prothonotary Warbler
Protonotaria citrea

In June in southern Minnesota, the pearly gloss of dawn creeps across the Mississippi about four a.m. A mile wide, the river eases slowly from black to navy to gray, her eddies glimmering scantly pink, and she flows straight as an interstate highway beside my car, nearly as calm as a lake.

Suddenly a slender little shrub rises magically from her shore: a great blue heron flaps its giant wings and rises toward a rookery hidden on an island of tall trees.

I park and hike into part of the largest block of floodplain forest in the Upper Midwest, entering a 700-acre tract of the 110,000 acres of river woods protected by the Upper Mississippi National Fish & Wildlife Refuge. I push a mile through waist-high nettles until flagging tape emerges dimly from a grape vine. *Point A-1. Listen.* More than twenty birds sing within fifty yards, more than half neotropical migrants, birds that winter south of the U.S. border.One flycatcher sings *pee-a-wee*, and another says *weep*. An American redstart *zit-zit-zees,* a song sparrow trumpets, an indigo bunting wheezes. A pileated woodpecker shrieks like a delirious spirit, and a yellow-billed cuckoo sounds out low deliberate kucks as if to clock the unhurried pace of the pale olive glow eking through the dark forest.

Locate the songs. Mark them on the map. I believe I am conducting the best citizen science I can for the creatures I love most in the world, a Breeding Bird Census, the oldest method of monitoring breeding birds in America, established in 1937. In 1993 I mapped 30 acres of mature woods into 64 squares, and each June I walk rows through the plot eight times, intending to count all territories of all species in a troubled habitat.

Nettles sway strangely back and forth at A-2. A female northern oriole pops above the plants and then jerks awkwardly down, yellow and brown. She pants and flaps weakly on the ground, bound at a leg by a fishing line that is also snagged around a fallen branch. I bend down with my car key, and she promptly bites my thumb, squeezing it without strength. I cut the line, and she flutters only ten yards away. A bright orange male drops behind her and pipes quietly, and a second male sings a full song above her.

I mark both locations immediately. *Two males encountered at once suggests two territories.*

There's a rustle in a high branch of a box elder. Now the female oriole dangles upside down from a stalk of dead grass caught on line remaining around her leg. She flaps outward and snaps backward again and again, and finally she yanks herself free, and the grass plummets straight beneath her, an unwelcome exotic added to the forest floor, reed canary grass, *Phalaris arundinacea.*

Phalaris grows thicker than cane and higher than my nose, and as I shove through a stand of it, I wish it were nettles. Nettles sting my thighs, but they're indigenous and let saplings to grow. *Phalaris* does not. Shrubs grow rarely amid the grass, and trees stand only in isolated copses.

A faint *twee-twee-tweez* floats down from a towering cottonwood. A cerulean warbler perches in a flood of eastern light, lifts his brilliant blue cap, flashes his snow-white throat and dazzling blue necklace.

Of the forty bird species breeding on the BBC plot, the cerulean warbler nests the highest and is the most important to document. It suffers the steepest population decline of any warbler in North America, and its presence on the BBC plot helped deter a logging proposal on adjacent land. The Upper Miss Refuge acquired the threatened acreage, but the new protection does not guarantee the cerulean's habitat here. Past the big cottonwood *Phalaris* fans out interminably, and the tall trees the warbler needs grow fewer and farther between.

The grass invades forest floors throughout the entire northern half of the Upper Mississippi, 180 river miles, says Melinda Knutson, wildlife biologist, Upper Midwest Environmental Sciences Center. Though woods have grown along the Mississippi for centuries, today's floodplain forest is not regenerating, says Randy Urich, forester, U.S. Army Corps of Engineers.

I turn around and move through nettles again, counting beneath a closed canopy of sleepy-gray silver maples that twist skyward with whorls of multiple trunks. A melodious whistle rings out thinly, descending, echoing all around. A brown creeper crawls down a maple trunk, and then the five-inch bird settles on a nest of maple keys and grapevine shreds jammed ten-inches high behind a sheath of maple bark.

A house wren gurgles from the crest of a downed maple. A winter wren twitters from the maple's uplifted roots. A cardinal *cheer-cheers* from a maple-top, an oriole, vireo, jay and chickadee sing from maple-tops.

Maple, maple, maple. At first glance it seems a boon to birds, but the silver maple forest on the Upper Mississippi is a monoculture, say Knutson and Urich. The maples comprise more of the woods than during the 1800's, and most are the same age, 50-70 years, expected to live only another 10-30. "We cannot predict what will happen after the silver maples die, but we know the forests do not regenerate the same way as in the past," says Knutson.

Before European settlement, forests sprouted on mud flats and sand bars. Modern water levels generally prevent flats and bars from forming. "Floods are worse than they used to be," says Joseph Wlosinski, ecologist, U.M.E.S.C. During 1937-1998 the Mississippi at St. Louis flooded, on average, about five feet higher, for about twice as many days than during 1861-1936. It flooded once every two years rather than once every three and one-half years.

Nowadays seedlings and saplings die during prolonged inundation, leaving vacant vaults of greenish air between nettles and maple-tops. Still a female scarlet tanager blurs furtively against foliage, perching in dark shade, her plumage looking like dappled sunshine. She flies into a box elder and slips onto a nest of grass so flimsy-looking I expect it to fluff away as she hunkers beneath its rim.

A flaming red male glares down with black beady eyes, and then a second male sings a long hoarse note, and as I look for him, the rest of the world wakes. Out along Highway 61 waste disposal trucks blat to a synchronized

start, VROOM-VROOMING to an Indianapolis-500 crescendo, and then a train whistle blares through the woods like a tornado siren. The freight cars rumble nearer, roaring. The ground shakes, the northbound fades, a southbound blows it horn, a jet booms above, and third train blows its whistle across the river in Wisconsin.

I can hear no birds, and as I wait, swatting mosquitoes from my ears to ankles, I remind myself why I am not home sleeping. I learned birdsong backpacking and bicycle-touring, and I choose the BBC as a conservation project because after I drive ten minutes, I am immersed in habitat five hours without consuming pollutants.

The BBC method requires I learn the birds' "house," that is, survey the vegetation in the census area. It produces data that conservation arguments frequently lack, population densities of birds in specific ecosystems. BBC's provide the oldest benchmarks for bird densities in North America, allowing scientists to relate changes in bird populations to food sources and plant communities as well as general population trends.

From 1937 to 1997 BBC's were published in the *Audubon Field Notes, American Birds* and *The Journal of Field Ornithology.* Currently no agency anywhere plans to spend the $6,000 necessary to publish annual BBC's. Volunteers are losing interest. In 1984 212 BBC's were published. In 1999 less than 100 were turned in to Jim Lowe, volunteer editor, Cornell Laboratory of Ornithology.

I fear I'm using a dying method to try to help a dying ecosystem. Since European settlement, U.S. floodplain forests have declined by 57% to 95%, according to Knutson and Erwin Klass in *Natural Areas Journal.* The north central U.S. has incurred the largest losses, and the regional list of birds of management concern in floodplain forests include the osprey, bald eagle, cerulean and prothonotary warblers, red-shouldered hawk, great crested flycatcher, yellow-billed cuckoo, American redstart, gray catbird and others.
Finally the rumble of engines subsides. The ground ceases to shake. Seven straight minutes of precious early song has been lost; once I lost 15 consecutive minutes.

A rose-breasted grosbeak sings sweet notes, letting go tones that drip through the woods as richly as his crimson vee drips color down his chest. An ash leaf bounces, and a female grosbeak hovers roughly below it, flapping her wings weightily. Plump and drab, usually silent and secretive, she suddenly flies up like an oversized hummingbird, poking clumsily at the leaf with her biggish beak. The Great Worm Feast has begun! For about ten days each June, larvae appear on leaf-bottoms everywhere, and all the mid-sized birds--robins, catbirds, buntings, even sapsuckers and woodpeckers--flutter beneath leaves, trying to feed like warblers and vireos.

A *bizz* buzzes somewhere high in a cottonwood, but out on the river a boat whines and booms, and a drone follows, deeper than a train-rumble, lower and slower, vibrating heavily. A catbird chats clearly through the noise, but I cannot hear the *bizz,* and I stare at the cottonwood. It is common cottonwood, *Populus deltoides*, the granddaddy here, since no swamp white oak grows on the plot.

Old Man Cottonwood rises perfectly straight, stands a good head taller than the highest maples, and his crown seems to bush out across a third of the sky at once. His puffballs float white against the blue sky, and his leaves glitter so brightly green and are shaped so much like valentines I consider them heart mirrors.

Like some Native Americans, I consider cottonwoods sacred trees of life. A month after the winter solstice, ice shifts and thunders in the backwaters of the Mississippi, and bald eagles cry from nest sites in high crotches of the tree. As the ice melts into sloshing slabs, great horned owls hunker flat on nests in high crotches, and male raccoons walk out on limbs and nip the necks of mates. As buds emerge, red-shouldered hawks shriek *kee-ers* from nests in high crotches, and herons, egrets and cormorants croak and groan, arranging sticks in high branches. As the heart-leaves uncurl, warblers flood crowns, and by the time the foliage leafs out fully, ceruleans defend territories from treetops, and orioles weave nests that hang like baskets in high, dangling branches.

The drone churns nearer: a river tug pushes a raft of barges north from one of 29 locks and dams that help maintain a nine-foot channel that enables more than 100 million tons of cargo to move between St. Louis and St.

Paul each year. Most of the cargo is corn and soybeans, vital to the midwestern economy; nonetheless the current system of water management probably threatens these woods.

The nearby dam restrains five feet of water that would otherwise flow downstream, away from saplings that need drier conditions. Meanwhile rain and snow-melt drain more heavily from upland farms, lawns and city streets than from long-lost prairies and diminished oak forests. Run-off shoots faster through channelized tributaries than through pre-conquest marshes and streams, gathers in greater quantities behind man-made dams, and floods more forcibly through long, straight levees than through the old meandering Mississippi Mark Twain once called the "crookedest river in the world."
The drone dies, and a flock of grackles scream from the cottonwood crown. Thirty swoop down, and a great horned owl rips through leaves, young, not fully feathered. Grackles and jays dive-bomb it, and it swivels its head, snapping its beak. A redstart flashes red and black around the owl, and an oriole rattles and pecks its shoulder, and the owl half-flies and half-hops to a higher branch.

Bizz! Bizz! The great-blue gnatcatcher I have been waiting for finally buzzes loudly enough to record. The four-inch bird darts at the two-foot owl; the grackles, a robin, a catbird follow; the owl heaves himself out of Old Man Cottonwood and flaps his way to a tall black willow. The other birds retreat, but the gnatcatcher lights a few inches from the owl's talon, flicking a tiny tail, buzzing, hissing, pumping a tiny bill. The owl turns away, tucks its beak against its breast, blinks as if confused, and the gnatcatcher darts above it, hissing on at the potential nest predator.

I'm warmed by the little bird's pluck. Gnatcatchers decorate nests with bits of webs, and like Old Grandmother Spider in Native myths, they whisper wisdom to mankind. *Confront the giants that will eat your world.*

A BBC provides one of many necessary means, and I will be overjoyed if another volunteer counts this plot fifty years hence. Will the woods be here? Or enough silence to hear the forest's song? Maybe not. Here on the Upper Mississippi, it appears we have engineered the quiet of the morning and the tall trees of the floodplain almost to the memory of history.

LITERATURE CITED: Knutson, M.G., Klass E.E. 1998. *Floodplain Forest Loss and Changes in Forest Community Composition and Structure in the Upper Mississippi River: A Wildlife Habitat at Risk.* Natural Areas Journal 18: 138-150

Richie Swanson's nonfiction has appeared in *Western Birder, Oregon Coast Magazine*, *Birder's World*, and *High Country News*. Richie also writes fiction and his short story the *Sting 'A Otter Jack* is featured in our Fiction section. His fiction has also appeared in *Innisfree*, *Short Stories Bimonthly*, *Mobius*, *Transnational Perspectives*, and *Ginosko*. His unpublished novel, *The Trouble with Becoming an Aunt*, won the PeaceHope Year 2000 PeaceWriting Award and he was a finalist in the national fiction contest of *Alligator Juniper*. He lives simply on a boathouse on the upper Mississippi River.