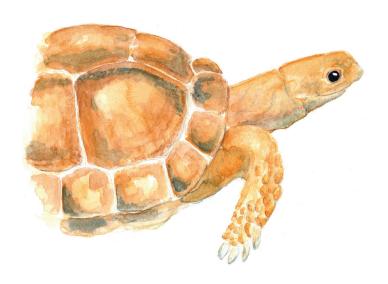
# Nature Study for the Whole Family

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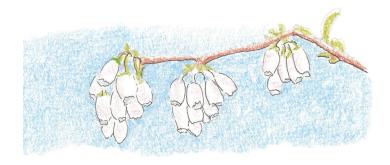
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Ollustrations by Laurel Dodge, Photos by Laurel Dodge, Nancy and David Dodge, and Kathleen Diamond.

#### Dedication



To my parents, David and Nancy Dodge, who first carried me on the trail, then held my hand as they walked beside me, and finally let me run ahead. Thank you.

## Safety First

In order to protect your family from disease-carrying ticks and mosquitoes while outdoors, please wear long-sleeved, light-colored shirts and long pants. Apply insect repellent, and avoid mosquito-dense areas and times of day when mosquitoes are most active. After your time outdoors, do a thorough check of the entire body for ticks. Remove ticks as per your doctor's instructions. See a doctor immediately if symptoms of a tick-borne or mosquito-borne illness, such as a rash or flu-like symptoms, occur. For more information, contact your county or state department of health.



Above: Mussel, Periwinkles, Barnacles Right: Tortoiseshell Limpet



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## Introduction to Nature Study

As a naturalist who grew up in the wild landscapes of Maine, I know the value of unstructured play in nature. I believe that there is a bond between children and their initial landscape. It is there that children begin to understand the natural world. It is there that they develop the self-confidence that comes from real activity in a real environment.

The easy exploration of nature that was a foundation of childhood in previous generations was based on unstructured summers, weekends, and afternoons. Kids don't often get to play in marshes and meadows anymore. They are too busy to romp freely in forest and field. Instead of taking off on their own adventures with their siblings or the neighborhood kids, children are shuttled from one scheduled activity to the next. When they are home, they spend too much time indoors watching TV and playing video games or doing heaps of homework.

Even if kids want to explore, their yards and neighborhoods are filled with turf grass and little more. The landscape of many suburban acres has been rendered sterile by an overzealous application of landscaping techniques that take grooming to the level of high art. Urban areas have long felt this loss. Even the countryside is adopting the suburban standards of tidiness, but there is a long way to go before the open spaces there are made into the artificial-lawn parking lots that grace so-called "desirable" neighborhoods.

My dilemma, and yours too, if you chance to live without the benefit of acres of land of your own, is how to give the outside back to our kids, satisfying their urge to explore while ensuring that they always come back safely. To do this, we have to be engaged in an arena that was once reserved for children: we *all* have to go outside and play.

As our landscape becomes more built-up and our schedules fill up, this seems like an impossible task. We have our own work and chores that continually threaten to overwhelm us. Most parents are not comfortable opening the door and letting their kids outside alone. Most wonder when they could possibly collect enough free moments to go outside at all.

Though nature may no longer be in the dooryard, and though families find their time together fractured by outside commitments, one hobby will help you carve out time together to appreciate the great outdoors. Nature study is the pursuit of knowledge about the natural world. It is not a formal course of study with orderly lessons but a quest that begins by immersing yourself and your family in the outdoors. Just as children played in the forests and fields around their homes in decades past, you can bring your family together as you play and learn outdoors in nature.



Sebastian in Belgrade, Maine

Whether you dabble or delve into nature study, you will be rewarded in many ways. Nature walks and hikes provide free, peaceful exercise. Close study of wild plants and animals will stimulate curiosity about their mysterious structures, behaviors, and habits. Your family will spend memorable times together as they discover the natural world. The nature lore that you discover with your children today may be passed down as a precious gift to your grandchildren in years to come.

Because family time is scarce, parents would do well to use it wisely by choosing activities that bind the family together. Exploring your natural surroundings gives parent and child the chance to wonder together at the beauty and complexity of our world. Shared experiences on the trail foster bonds between siblings who otherwise may be engaged in separate, age-specific activities.

Nature study, unlike some louder and more distracting pastimes, allows for conversation. It satisfies all ability levels and a wide variety of interests. There are many trails to follow and an infinite variety of discoveries to be made. Nature offers a serene setting far from the everyday tensions of work and school. It can transport us intellectually, emotionally, and socially. The practice of nature study can ground your family in a shared experience of learning and discovery, a healthy foundation upon which any family can grow.

Your family's explorations will lead to new discoveries. The places you visit will inspire your family with their beauty and complexity, bringing awe and wonder into your lives. The immersion of your family in field, forest, marsh, seashore, or desert may foster protective feelings and an ethic of care toward wild places that will guide their decision-making throughout life.

You can give your children a real childhood. You can counteract the messages of our consumer culture that say that entertainment must be bought. All you have to do is join hands with your family and take a step out the door. Find the seashore. Find the forest. Find a meadow, pond, river, or weedy roadside. Walk there together. Walk there as often as you can. Explore it in the spring, summer, fall, and winter. Make it your own. Let your kids explore it



Skunk Cabbage

rock by rock, plant by plant. Explore alongside them. Ask questions. Breathe the air. Be in close contact with nature.

These radical steps will require that you put down your phone and turn off the computer and the TV, that you get as many members of your family together as possible, and that you get moving. It may seem impossible at first, with all the whining and complaining (from your muscles and from your kids), but you will begin a journey that will impress upon them the importance of both the natural world and the family.

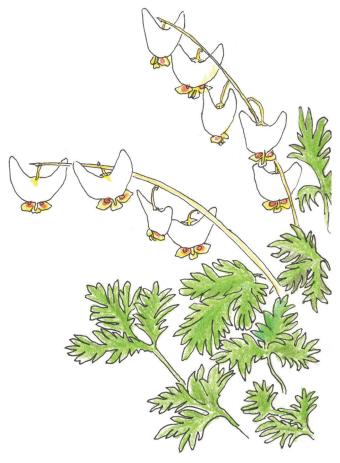
Find the good stuff: a blue robin's egg, a towering stalk of big bluestem grass, the sound of spring peepers calling, the scent of skunk cabbage, the sight of a peregrine falcon nesting on a window ledge. Take your children to nature preserves and parks often and from a young age so that they will be confident in wild areas. Take them to places where they can get to know the plants and animals as individuals, places where they can find peace along a trail.

The strongest influences on children's lives are the actions and values of their families. A family that demonstrates its values by getting outside, getting moving, and getting engaged with nature teaches compassion, conservation, and curiosity with every step. It is up to you to show your children what you value. Make sure your actions match your words. Show your children that you care about nature, not just pictures of nature on nature programs. Do this by seeking it out at every opportunity.

There is a wild place that your family can adopt as its own, a place to begin nature study. It might be a river whose banks fall gently toward the water. It might be a pocket of woodland with tall, straight tulip trees or low, spreading live oaks. It might be a cattail swamp where red-winged blackbirds sing "chink-o-ree." It might be a dry scrubland crisscrossed by the tracks of the coyote and desert hare or even a vacant lot nearly bursting with vigorous weeds. This special place is probably in your neighborhood or not far beyond its borders. It may extend for miles or be enclosed by the lines of a city lot. It may be crowded with people or empty. It may be the only remaining bit of wilderness left in your city or town. No matter; it is a place your family will come to love, and you can lead them there.

In order to claim it, to make this natural space your own, all you need to do is include it in your daily life. Walk its paths, watch its waters, climb its trees, and wade into its pools. Draw from it the questions that will lead your family on a lifelong quest for knowledge and beauty in the natural world.

Look, listen, smell, touch, and learn. You will be surprised by the wonders that are uncovered by patient study



Dutchman's Breeches

and the use of all of your senses. Explore the landscape with your family, walk in beauty, and make memories along the trail. Take the time to see—truly see—your surroundings, to know your home ground, and to become friends with your wild neighbors. Make the practice of nature study a part of your daily life. Through its lens you will be able to examine an ever-expanding and endlessly fascinating world.





### A Snail's Pace

The naturalist Edwin Way Teale wrote, "The way to become acquainted with an area intimately, to appreciate it best, is to walk over it. And the slower the walk the better. For a naturalist, the most productive pace is a snail's pace. A large part of his walk is spent standing still."

Children, then, must be instinctive naturalists. Watch their nonlinear, undirected ramblings through fields or forests as they move from one point of interest to the next. Freed from time constraints and ideas about "productive" ways of spending time, they can get lost for twenty minutes watching the workings of an anthill or the construction of a spiderweb.

In contrast, the harried adult, confident that he or she already understands the building of a web, may not pause even a moment. At most he or she may mutter a bland

acknowledgment, such as, "Oh, there's a spider building a web," that dismisses this incredible feat of aerial engineering in a single sentence.

To allow learning at a snail's pace, rely on nearby places for nature study. They offer the greatest opportunity for exploration because there is no pressure to see it all, as there would be had you driven five or more hours to a national park. If you are but five minutes from home (or if nature can be found in your backyard), you won't have to rush your family when they are enraptured by a spider building her web or a black duck sitting on her nest. You will be able to afford the time to stand still, living in the moment and immersing yourself in nature, rather than spending your time rushing around in search of it.

One of my favorite places to take my son Sebastian when he was two was Hansell Park in Buckingham, Pennsylvania. This municipal park is a far cry from wilderness. Surrounded by monstrous condos and housing developments on two sides, this multi-use facility has several large playing fields, a playground, a running track, and large mowed areas. The majority of the land is no better than the sterile backyards that surround it and is probably typical in design for parks of this type. What Hansell Park had going for it that many others do not is that some of the land around the pond was reclaimed with native plants—including a knock-your-socks-off fall display of asters—and a strip of rich forest remains between it and a church graveyard.

Because Hansel Park was close to home, it was easy to visit, and we went at least once a week. In this way, we were able to search out its secrets slowly. Our winter trips there involved playing on the playground, sitting on the

bridge to watch the mallard ducks, and walking on the nature trail through the forested strip. Because the pond fish lay dormant in the deepest waters, and no bees were abuzz in the asters, and no caterpillars hurried across the crushed stone bike paths, it was a welcome surprise when Sebastian and I spotted hard evidence of at least one insect's winter survival. It was a pleasant reminder of the fluttering, whirring summer to come.

Well-camouflaged among winter's grays was a suspicious-looking bulge on the side of a twig. Closer inspection revealed a cleverly designed cocoon. Silky gray threads were bound into a three-inch pouch.

Its side sported a large hole; this cocoon had been noticed before. A bird must have found it and used its beak to get to the pupa inside. I snapped off the empty case, along with its twig, and tucked it into my pocket for later identification. Sebastian had learned about insect pupae from a National Geographic video and was pleased to talk about the cocoon for a while.



We had not moved more than five feet down the trail when Sebastian spotted a yellowish-orange, plastic-looking blob glued to the bottom of an arched blackberry cane. Having seen plenty of these attached to the walls of the praying mantis exhibit at the zoo, I knew that it was an intact mantis egg case, waiting for the turn of the seasons to trigger the hatching of the young mantids.



Praying Mantis Egg Case

Sebastian was soon off again, having spotted an animal trail leading into the woods. Had I been teaching a class, I might have called the student back for a discussion of the praying mantis, but parenting is not teaching, and nature study is not schoolwork. Sebastian was not engaged with the egg case, so I left it and followed him.

The animal trail led into a green mossy grotto. Sebastian named it our Forest House. He patted the cushions of moss and remarked at how soft they felt. Toddlers and preschoolers love tactile engagement, and moss is a pretty cushy, hands-