

Whose Ladybug is It?

by Sara Stein

This is the complete text of the stirring, hopeful keynote speech given by Sara Stein at the 1999 FNPS Conference, presented in much the same format as Sara, herself, typed it. Sara is the author of *NOAH'S GARDEN* and other fine books. Elizabeth Smith provided the beautiful illustrations of Florida animals and plants.

I'm going to start with a quotation. It's not poetic; and it's not a joke. It's from an article about an elementary school principal who was about to abandon recess and dismantle the school's playground. He was quoted on the subject of improving academic performance: "You don't do that," he said, "by having kids hanging on monkey bars." Well, I hope outraged parents saved the monkey bars – The playground is school property; the parents pay their taxes; so they have a say. But one student, a little girl, was quoted too: She was looking out the window at the sunny day, and confided to the reporter, "I'd like to sit on the grass and look for ladybugs." Now that raises a trickier question: Just whose beetle is that out there in the grass? Ladybugs come without a bill of sale; they're not under government protection or regulation. So it would seem that they don't belong to anyone. You have to be concerned about your children's habitat;

but not about ladybug habitat.

You can, if you wish, kill the beetles outright with pesticide. It's your land after all; if you don't like them on it, so much the worse for them.

So you might say a ladybug's limbo outside the law gives you virtual ownership of it.

However, the ladybug isn't a party to your deed. She doesn't recognize your boundaries.

In fact, your idea of property isn't shared by any of the creatures that live on your land, or live from it, or cross over it.

Seeds of what you plant may move by bird or wind far beyond your boundaries.

And insects that pollinate your flowers, birds that disperse their seeds, funguses that nourish their roots don't recognize your borders either,

and don't confine their services only to your land.

Wind blows and water flows and soil continues over the whole continent.

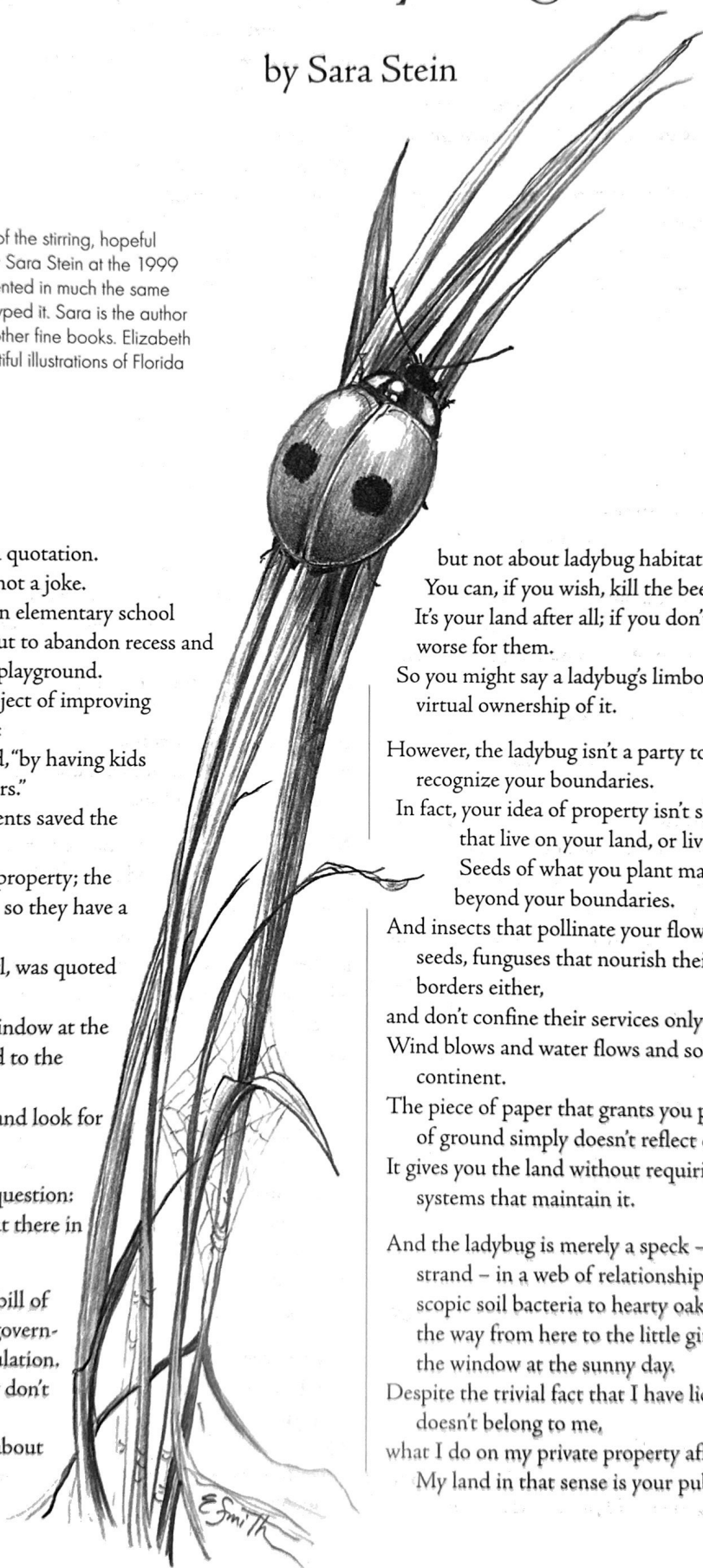
The piece of paper that grants you possession of your little piece of ground simply doesn't reflect ecological reality:

It gives you the land without requiring responsibility for the living systems that maintain it.

And the ladybug is merely a speck – the slightest quiver of a strand – in a web of relationships at every scale from microscopic soil bacteria to hearty oaks that's flung over the land all the way from here to the little girl, wherever she is, gazing out the window at the sunny day.

Despite the trivial fact that I have license to harm what really doesn't belong to me,

what I do on my private property affects what happens to yours, My land in that sense is your public ground,



and the ladybug, virtually mine to crush between my fingers, is yours, too.

There's another way to answer whose ladybug that is,
The little girl has a soft spot for cute animals –
for little round red beetles with polka dots on their back.
In those hours when she isn't wasting her time hanging on
monkey bars, she's probably learning about ladybugs in the
classroom and from books.
But I wouldn't want to be responsible for that child growing up
ignorant of their actual charms,
unable to relate to her own children how, once upon a time,
she used to sit in the grass and hunt for ladybugs on sunny days,
So I think that ladybug does very much and very personally
belong to the little girl, and she should not be deprived of it.

We are depriving children of experience.
We are dismantling their natural playground as
unthinkingly as that principal is dismantling
the schoolyard.
It's actually not very likely that the girl will find
ladybugs or much of anything else in the grass –
not when the grass is lawn,
not when the suburban landscape has spread so far over
natural habitat,
not when the little that's left of wild places is overrun by invasive
ornamentals that we've planted –
and not if our very idea of nature is off there somewhere,
in a conservation area,
not in our own back yards.

I want to talk to you about replanting your home landscape,
making it more wild – partly for the sake of conservation in
what ecologists now call the Age of Extinction, but also
because of us, the kind of animal we are,
and my doubt that the landscape we're creating really suits human
nature.

We're raising a generation of children who feel uncomfortable
outdoors,
who are scared to walk in the woods,
who don't know where strawberries come from,
who feel disconnected not just from the natural world,
but from the generations before them who had knowledge of the
land, and how to live from it.

Both the fact of disconnection and the threat of extinction have
come on us suddenly,
within the lifetime of most of us here.
One in every three of our native plants is presently threatened.
All the places I was connected to as a child are gone.
The frog pond is someone's septic field.
What remains of the orchard is one specimen apple tree.
The dirt drive is a paved road through a development that once
was woods.
These are the places I used to gather wild raspberries, catch

fireflies, follow box turtles, watch swallows swooping in the
sunset and bats replace them in the dusk.

The farms and barns, the woods and fields where they once lived
is suburbs now.

It's our home ground: the land we won:
And they can't live there with us.

It's very easy to tame wild land.
When we first bought our own piece of ground, I took its
liveliness for granted:
There were birds in the morning, frogs in the evening,
the fox in the meadow, the woodchuck under the wall.
But like other owners, we wanted a proper landscape.
We cleared the brush, cut the brambles, mowed the meadow grass
to lawn –
And when all that was gone, we planted exotic shrubs, and neat
beds of flowers –
and kept the garden groomed the way you're supposed to do –
leaves blown, hedge sheared, grass mowed, beds raked, and
flowers deadheaded.

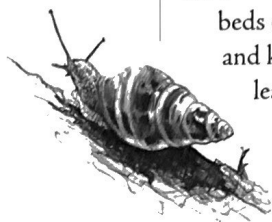
The result was an enormous improvement – to our
eyes anyway –
But not to other animals:

To them, we'd groomed the life from our land.
Because what we cleared away was their food and shelter,
and what we substituted for it offered nothing to eat and no place
to hide.
In the space of a few years,
we managed to make our land uninhabitable to nearly all the
creatures that had shared it.

Most people don't get the chance to notice what happens
when old fields and wood lots become suburban yards.
Usually the clearing's been done and the lawn planted by a
developer or a previous owner,
so they have no way to compare before and after.
They may have grown up elsewhere; they may have grown up in
an already urbanized neighborhood.
They may bring from their own childhood no wild memories at
all.

I have relatives who moved to Florida for retirement.
They loved that they could grow roses all year long.
They hated that the great blue heron pooped on their patio.
What did they know of longleaf and coontie?
Of tortoises and orchids?
They cultivate exotic orchids indoors,
looking out over the ninth hole of the adjoining golf course.

Their naivete is not their fault, but it is everyone's problem.
People moving into a new subdivision may have no idea what the
natural vegetation looked like,
what a marsh is, where blueberries used to grow,
the hundreds of moths that used to come to window screens at
night,



how many snails there used to be, and walking sticks, and ring-necked snakes,
and bluebirds where their lawns are now.
And if they don't know the way things used to be,
they can't notice that anything is missing.

And I guess if we'd landscaped gradually, over ten or twenty years,
I might not have noticed either.
But this happened very fast.
For those first few springs the wild land was filled with birds.
Then we whacked down the red cedars.
The next spring there were hardly any birds.

So I noticed, but I didn't get it at first, didn't understand what it was we'd done.
I'd been writing about biology and natural history for years,
and as we cleared and mowed and weeded, I started writing about gardening too.
And yet I didn't immediately make the connection between more lawn and less life – between gardening and ecology –
until memories of childhood made the connection for me.

Thinking back, I realized that even the liveliness we'd enjoyed at first wasn't much compared to fifty years ago.
When I was a child, vanishing species like box turtles and luna moths were still common.
Even twenty years ago, no one thought of buying ladybugs in cans.
Today, kids are growing up on grass without grasshoppers.

What's happened in those years from my childhood to theirs is a wholesale change in the landscape, from fields to lawns, from thickets to foundation plantings, from woods to specimen trees.

This isn't just a cosmetic change, neater, nicer roadsides and let's drain the ditches,
it's loss of habitat, and therefore loss of little things like fireflies, and as these little losses mount up, the collapse of whole organic systems,
until what's left is yards and gardens that are helpless to live without our care.

I want you really to think about this:
The sense of ownership we're used to, the landscape we create, the gardening we practice,
makes land need all those sprays and powders that line the garden center shelves,
and need even the most basic things:
food and water.

We struggle to replace the services of natural communities with learned skills and bought products – pesticides instead of predators, sprinklers instead of rain.

And when we want a vacation from doctoring the garden,
we pile into the car and drive to Nature,
without wondering how wild land can flourish when there isn't even a spigot for a hose.

By the time I made the connection for myself, all the ground-nesting birds were gone.
So was the owl, and the field mice and meadow voles that had been its food.
The fox had left, even the woodchuck had moved away.
And I could list a lot of little things that were missing too:
They included ladybugs, fireflies, grasshoppers, butterflies, even common toads.

Instead we had a lot of things that we hadn't had before:
We had bags of fertilizer in the shed, a pile of mulch behind the garage,

and in the garage a tractor, a mower, a weed whacker,
a leaf blower,
and a couple of back pack sprayers.
We had pests and the dozen pesticides needed to control them.
We had a sprinkler system.
Also a lawn company.

And an arborist.
And a lot more work than it was fun to do.

The economics of it struck me:
Here we were supporting with our money, labor, and materials this poor land that used to get along without us very well.
And for all our cost, the land was supporting fewer inhabitants.
It was not only helpless, but deserted.

So I sat down with a bunch of books on ecology to understand what had happened,
and the first thing I understood was that by wiping out tons of food – wild fruits, and seeds, and grain, and nectar – we'd drained the fuel from our land.

Food is what runs ecosystems.
Ecologists measure the wealth of woods or marsh or meadow by how many calories of plant and animal life they produce.
And calories are energy, so my first crude understanding was that the reason we had to put so much work into maintaining our land was that it lacked the energy to run itself.

But the problem turned out to be more than a matter of calories.
It was as though we'd put a pretzel stand where there used to be a supermarket.

You can't run a supermarket on just bread, and you can't run your yard on just lawn.

The health of a piece of land depends on the diversity of its species – lots of different kinds of food for lots of different kinds of customers that together support the whole enterprise.

We ought to have known this all along.

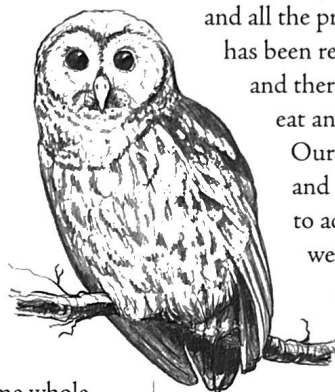


We ought to have known just by counting:
 How many species in the marsh or barren; how many in the
 pampered yard?
 We ought to have known because
 when we want to watch birds, or see butterflies, or find wildflow-
 ers,
 we head for more complicated places than our own home neigh-
 borhood.
 We ought to have known best of all from our own communities,
 because it's the diversity of people that makes a society work.
 What I'd done was remove from the system many kinds of plants,
 each of which had some role to play in it.
 Let's say we simplify our society in the same way, by removing
 a few kinds of people – carpenters or doctors.
 With each removal, we lose the knowledge that kind
 of person had,
 and the more kinds we remove, the more helpless
 our society becomes.
 It's the same in natural communities.
 Each species has some bit of know-how no other species
 has.
 Removing any plant or animal erases that portion of
 intelligence,
 and leaves the land more stupid.
 Lawns and foundation plantings are a lot simpler than the wild
 landscape they replace,
 and for an ecosystem, being simple is the same as being simple-
 minded.
 But we don't know, or have forgotten,
 or never in our own childhood had a chance to experience the
 complexity it takes for land to run itself.
 I'd given in my bookshelves about equal space to ecology and
 gardening,
 but I'd been exploring ecology out of curiosity while following the
 instructions of horticulture.
 As I put the two together,
 I began to examine common practices, question even seemingly
 innocent things we'd done.
 We'd mowed down the rushes around the pond.
 That doesn't seem important, but simply by being able to grow at
 the water's edge,
 rushes provide habitat for dragonflies and frogs.
 So if you cut down that habitat, you also cut the number of
 inhabitants,
 and the stupidity shows up as a lot of mosquitoes.
 When we bag leaves and put them out with the trash,
 we're also throwing out next season's generation of moths and
 butterflies that overwinter in leaf litter,
 and if we do that year after year,
 we eventually wipe out the wildflowers those moths and butter-
 flies pollinate.



We practice exterior decoration.
 We plant what pleases our eye,
 without considering that breeders of garden flowers have no idea
 whether the nectar is the right consistency for butterflies,
 whether the pollen is nutritious, the scent attractive, the color
 even visible to bees.
 Bees can't see red; butterflies can't suck thick nectar through their
 narrow straws.
 I've finally located a source for our native red mulberry,
 which feeds over a hundred kinds of animals.
 But it wasn't easy: Most mulberries available in commerce are
 sterile clones that,
 because they don't bear fruit, don't stain your carpet.
 The Edible Landscape catalog where I found the one I
 wanted also offers porcelain vine, which sure enough
 feeds the birds – and has smothered hundred of miles
 of natural habitat.
 These are just bits and pieces of the image that was
 forming as I read and reconsidered.
 The larger picture when it finally emerged hit me really
 hard.
 These little systems – our narrow woods, our tiny pond,
 our measly meadow –
 had been components of what was once an immense environ-
 mental conservation system.
 That system no longer works,
 not in my town, not in yours,
 not on land that's been developed in this way anywhere on the
 continent.
 The rain that once was held by woods and swamps and deeply
 rooted grasses now runs off wasted.
 The soil that once was fat with leaves and funguses gets thin and
 barren.
 We've robbed ourselves not just of pretty things – this bird or that
 flower –
 but of the most fundamental environmental services.
 Land in good health and in full possession of its senses conserves
 water, and builds the soil deeper.
 It thrives on change – on the fires or floods or droughts that are
 its natural history.
 It supports all those animals that control pests, pollinate flowers,
 plant seeds, decay litter, and recycle nutrients.
 These are services that any piece of land can do – and do better,
 and do cheaper, than I can with all that junk in my garage.
 But let's focus for a while on us, our species and our culture – our
 own ecology.
 Every kind of animal has evolved within the constraints of its
 environment,
 and is born already knowing or prepared to learn how its species
 earns its living.
 A cobweb spider comes prepared to notice corners, and knows

what to do when it finds one.
 A human baby comes prepared to smile,
 and with an expectation that the smile will be returned.
 There's no significance at first:
 It's the social engagement of baby and parent that give smiling its
 radiance and meaning.
 There've been cases, though, when a baby's first smiles aren't
 answered.
 No joy comes of it then,
 and the baby's urge to smile just fades away.
 You can notice in children a lot of other urges directed toward the
 environment.
 Urges to climb trees – or monkey bars if there aren't
 any trees to climb.
 And to chase pigeons, catch frogs, find hiding places,
 gather berries, cuddle animals, throw stones, mix
 potions, shape mud.
 What if these urges, too, represent expectations that
 the environment will answer back,
 will make connections between what the child wants
 to do and good reasons for doing it?
 Until about the 1940s, our culture and our landscape
 made the connections.
 You knew you were eating a bird because chickens came whole,
 with their head and feet.
 You learned which leaves to chew and which berries to swallow
 because your parents grew them or showed you where they grew.
 We used the environment – whittled arrows from arrowwood,
 made flower crowns and apple jelly, built lean-tos, raised tadpoles,
 caught fish and fried them for our supper.
 We didn't grow up to be the foragers
 that our species has been for nine tenths of its existence,
 and that these childhood urges would once have prepared us for.
 But we did grow up in intimacy with our environment,
 with respect for how it functions, with comfort in it, and with joy.
 And – this is very important –
 we grew up with a sense of deep connection with our parents who
 clarified the significance of our urges,
 who made sense of our human nature in our natural habitat.
 If a baby can grow up unsmiling because its cue is met by a blank
 face,
 there's reason to suspect that other aspects of human nature may
 fail to develop fully in a landscape of blank lawn.
 I think it's no coincidence that the generation gap and a sense of
 disconnection from nature have happened simultaneously.
 We're born expecting to get our hands on our habitat – to know it
 and use it and eat it.
 We're born expecting adults to show us how.
 And the diffidence and disrespect, the disinterest that we com-
 plain of in our children now,
 may be a symptom of our failure to reply.



This final realization about the ecology of suburban life
 changed the very root of how I saw conservation.
 I'd seen that the way I was gardening was destroying habitat.
 I saw that I had to restore the land for the others:
 for the plants and animals that we'd dispossessed.
 That done, I began to notice how children who came to visit –
 friend's children, kids at an annual office picnic, our own grand-
 children –
 ignored toys, abandoned television, lost boredom,
 found everything to do outside and didn't want to leave:
 They have lawns and playgrounds, these children, but that's not
 enough.
 All the mystery and all the knowledge, all the sensual pleasure
 and all the practical utility
 has been removed from these tamed landscapes;
 and there is for children, as for other wildlife, nothing to
 eat and no place to hide.
 Our species needs its natural habitat,
 and when the environment doesn't reply to our urge
 to act within it,
 we can become as lost and helpless as a cobweb
 spider in a world without corners.
 When I talk now about making the land more
 wild,
 I mean restoring it to gardens that are home and
 habitat for us all – where kids climb trees to reach the fruit,
 and birds nest in the branches.
 I use the word "restore," though, for want of a better one.
 Your whole lot may measure fifty by a hundred – a fraction of a
 meadow, a couple of shade trees.
 There aren't any natural models for nature at this scale.
 We can't recreate wilderness or even rural countryside.
 If I wanted chickens so my grandchildren could experience what
 an Easter egg hunt is really about,
 I'm sure there'd be a law against it.
 We have to create some form of wildness that's never been before,
 and that your neighbors won't understand until they see what
 happens when the land's brought back to life.
 My neighbors complain about the flocks of geese that spoil their
 lawns.
 When we replanted our pond shore with native wetland species,
 the geese moved off.
 Just one pair returns to nest each spring, and that's as it should be.
 That's balance.
 The number of frogs increased; and the small fry fish.
 That brought back the kingfishers and the great blue heron.
 Dragonflies multiplied, and with most of the lawn restored to
 prairie, they found plenty of insects to eat.
 We disposed of pesticides.
 We took down the window screens and never put them back.
 We don't use the sprinkler system anymore. We don't fertilize.

The native plants we use come from our own region where they
most naturally grow,
where they've lived without a gardener's help for thousands of
years,
where the amount of rain that falls is the amount of water they
need,
where the kind of soil we have is what they're used to.

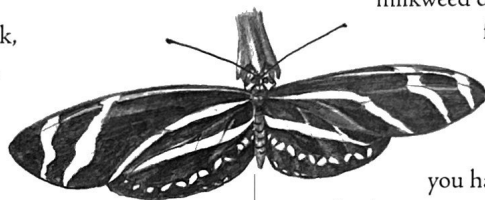
We don't compost; we don't mulch.
In the years since we sowed the prairie,
grasses and flowers together have turned hard clay into what
books call "good garden loam."
They compost themselves; they make their own mulch.

They form their own communities – with bacteria and funguses,
with ants, beetles, moles, and mice: creatures that gardeners
make war on,
but that have their place, and do their work,
and don't get in your way if you give them
the habitat they need.
The moles moved from lawn to
meadow almost right away, and we
threw away the traps.

These are the practical advantages of restoring a degree of
wildness:
The grass you plant makes grain, the flowers make nectar, the
bushes make fruit,
and back come the animals,
and away goes all that life-support equipment that seemed so
necessary before.

In the moral sense as well, restoration honors the public nature of
your land.
You're probably all read in conservation literature of the need for
wildlife corridors,
where plants and animals can travel among suitable habitats.
Development has created islands – a preserve here, another there,
barriered from one another by highways, malls, and subdivisions.
Fire, flood, drought, disease ...
any natural extreme can wipe out the whole population of an
island,
and if there's nowhere from which the species can repopulate, it's
gone for good.

The government answer – the conservationist answer –
is to buy up land connecting one preserve with another.
But you've already bought connecting land.
You own it.
You are the corridor.
And not only for the free passage of flora and fauna among
suburban yards,
but also for passing from one generation to another the experience
of ladybugs.



This is, finally, the human sense of restoration:
This conference has offered opportunities to explore natural
communities,
and to see examples of how they've been interpreted into natural
gardens.
What's harder to convey is the humanness of a restored landscape.
How alive it makes you feel, how funny to sweep the terrace while
the bluebird cleans her box.
How good to sample the first wild strawberries and see robins do
the same.
How wonderful, most of all,
to see children discover the robin's eggs,
and try, as I used to try, to make a bird nest –
and suddenly to recollect something almost forgotten:
how we used to gather bits of wool, dried grass, moss, and
milkweed down
for the birds to weave their homes.
That's when you reconnect.
That's when conservation moves from
some wild place
you have to pay to preserve and drive to see,
back to your own home grounds, back to the land you own.

All of us together own quite a bit of land.
And even if our pooled resources aren't much compared to what's
out there,
what we have is what we can do something with:
We can tame land to helplessness, or wild it back to life.
We can open books for children,
or open doors on the grass-grown ladybug world where they so
wish to be.
We can give that little girl a glow-in-the-dark firefly handpuppet
bought from the Nature Company,
or we can provide the real thing, the living luminescence.
I think this is what we must do,
not because we own the land,
but because we share it,
we and all the creatures on it,
our generation,
and all the children who follow us into the future.



EDITOR'S NOTE: Sara Stein was given a standing ovation at the conclusion of
this speech. The full text is presented here in much the same format as Sara
herself typed it for verbal delivery at the conference. It is my hope that
presenting it in this format will help you "hear" as well as read Sara's
message. I agree completely with FNPS Secretary Katherine Pordeli's
comment that Sara's book, *NOAH'S GARDEN*, is a manifesto for ecologically
correct, native plant gardening. I purchased it at the conference, went home
and read it immediately – could hardly put it down, and thankfully, having
heard and met Sara at the conference, could hear her gently talking all the
while. (*NOAH'S GARDEN, RESTORING THE ECOLOGY OF OUR OWN BACKYARDS*, by
Sara Stein, published by Houghton Mifflin, 1993, ISBN 0-395-70940-7.)