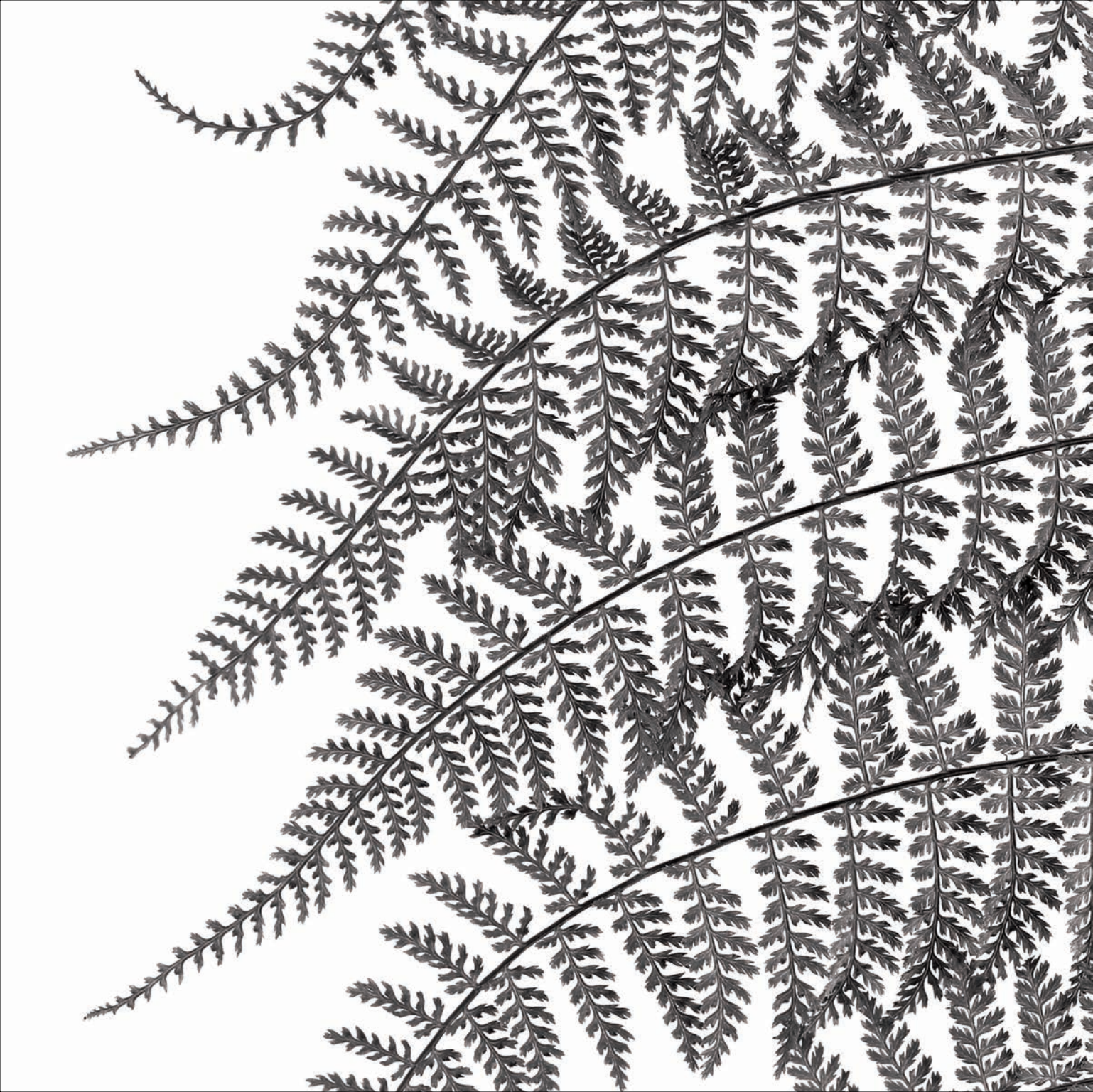
WAO AKUA



WAO AKUA

SACRED SOURCE OF LIFE

DIVISION OF FORESTRY AND WILDLIFE
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE OF HAWAI'I

BRINGING DOWN THE WATER

Eric Enos, with Gail Hovey

Water is . . .

philosophically, spiritually
water is sacred,
it is Kāne i ka wai ola, the life giving
waters of Kāne.

Out in Waiʻanae especially—
and in places where there is not much water—
you really see it like blood,
like the blood in your body,
the koko.

Just as our bodies would die if we had no blood,
so the land would die if the water was gone.
The water on the land, the blood in our bodies
are the same.

It has to flow
as the blood in our bodies has to flow
the water on the land has to flow.
The constant cycle of renewal
just as new blood is constantly being reproduced
and all these things the blood requires,
so does the water.

The rain and the water are life giving.
That's the sacredness.

We did go onto the land many years ago,
a parcel of land in upper Waiʻanae Valley.
It's a long story. The land was ranched, and
the water was
diverted, taken down, maybe a century ago,
to the sugar plantations.
But prior to that it was land that was a living
complex
a cultural complex and slowly we are
discovering the extent of that complex now
with archaeology.

We went onto the land in
the summer of 1978
we brought the water
down from the diversion ditch,
the plantation diversion ditch—
nine hundred feet elevation is the entrance
where the streams converged,
where Kaʻala Farm is about five hundred feet
elevation—
we brought the water down one mile.
In the summer of 1978
the Waiʻanae Rap Center staff, community
volunteers
and summer youth program participants
we ran the pipe.
By the end of summer
we had one mile of two inch PVC.
And we were clearing the land at that time at Kaʻala
and we planted our first taro patch.

It was very difficult because the land is rocky,
it's steep and going over stone walls, so . . .
There's no native plants,
only koa haole

opposite

Rain falling on kukui.
Photo by Masako Cordray

so we cut the koa haole,
just kind of try and cover the pipe with brush
as much as possible try cover,
trench it just a little bit,
just to try to keep it from the sun
so little bit of covering.
We brought it down.
And then we made our first loʻi kalo
and water first came back on the land at that point.

That was quite a moving experience
to see the water.
It comes from kind of a kukui nut grove,
where if you go up,
you go up about a mile above us.
At the farm itself it's very dry.
It's very arid.
It's hot.
You walk up a mile
and you're almost like in the back of Mānoa.
It's wet, it's cool.
Kukui nut groves and coffee
it has a sense of moisture
and so where the water came from is actually
kind of lush
because the stream is pretty constant over there.
So bringing the water down from that kind of a
little stream, rivulet,
which was wet and really kind of nice and cool
and coming down into an area that is totally dry
and hot
and getting that cool water coming onto the land
on top of an ancient taro terrace,
that was quite an experience for us.

I can still remember us
when the first water came through the pipe
and just watching the water flow out of that pipe
and feeling its coolness
as we walked in it in the mud,
the cool mud.

And from there the loʻi just blossomed,
taro grew, ti leaves, bananas
and from there we just fitted in pipes and just
started planting.
We just planted.
Cleared and planted,
cleared and planted as much as we could.
So it was pretty exciting times,
that summer and that year.
ALU LIKE helped us a lot, helped provide some
of the youth labor.
The state and city had programs,
training programs,
there were ex-offenders programs,
variety of things and resources
to help us put the program together.
So those were our partners in the early days.

We have to mention though
that the summer of 1978
when we did run the water,
the end of summer,
I remember we were working up there
and some enforcement agents came out and
asked us
who's responsible.

It was State enforcement, DLNR.
Department of Land and Natural Resources
Enforcement Agents.
They came out. We were out there working
and they came walking up the road in their
uniforms and they said,

"Who's in charge?"
And being the director, the supervisor,
I said, "well I guess I am."

And they said, "Well there's a complaint
of illegal diversion of water in Waiʻanae Valley."
So I says, "Okay. So what now?"

They says, "Well there's a complaint filed
and you need to follow up with this complaint.
You're in violation."

So, I called around and figured that
I should just go straight to the top, so I called
the Land Board
and said I'd like to make a presentation
about this violation.

I remember meeting with Mose Kealoha,
talked to him
about what we were doing. He was on the
Land Board
and he was pretty sympathetic so he called
Land Board's attorney
and I talked to them and I ended up
making a presentation to the Land Board,
and I showed them
old maps of the land, explained our program.

We're a non-profit community program.
We're leasing the land from the state, working
with alienated youth, using this water
which nobody else was using, it was already
pumped out of the valley
and all I was doing was picking up the leakage,
the surface runoff
which was not developable by the Board of
Water Supply and
as they already had their systems in and the
surface runoff, which is basically leakage,
that water was not water for them to utilize
because surface runoff water is not potable.

So I presented all that
and what happened at the Land Board
took a look at the issues,
took a look at what we were doing
and they ruled that they would give us
permission
to lay the pipe on state land.
It's all state land at the back of the valley.

However
when the pipe went into the stream,
it was outside of their jurisdiction.
They gave us permission to put our pipe
on state land
however where it goes into the stream,
actually physically enters the stream,
then it's outside their jurisdiction.
So that was the situation.
We could use the land to lay our pipes out
but where the pipe went into the stream
the Land Board, what they said was
that they weren't quite sure
who owns the water.
And I guess that's the situation,
that the Water Commission today is
struggling with,
yeah. You can own the pipe,
it's not the Board of Water Supply,
do they own the water?
It's like the Waiāhole Ditch, you know.
You can own the ditch
but who owns the water?

It's Honua,
is the stream that crosses the land at Kaʻala Farm.
Honua connects to Kānewai.
There's a few major feeder streams
that are part of the watershed
in upper Waiʻanae Valley.
Waiʻanae Kai is the name of the area
but Kānewai seems to be that main stream,
the water of Kāne.

We've formed a committee, Mohala I Ka Wai,
a community group to look at the question
of water in and of itself
because we believe
all the valleys
are being threatened.
If we allow all of the water to be taken
out of the valley, drying up the source,
if we do that
our land's ability to cure itself
will be taken away.
The valley needs water,
the mountains need water,
the trees need water.
The role of the watershed—
when it rains, the winter rains—
it's like a sponge.

I am going to make the parallel.
If you have a table top and if you poured water on a flat table top
the water would spill out and just fall to the wayside,
just fall to the floor and get wasted.
But if you have a table top,
if you had a little barrier along the edges of the table top
and you filled it up with rocks and greenery, and moss
and you poured water on it you could end up having a reservoir of water.
And if you kept it covered with green material or mulch or moss,
that water would probably stay there for months and months and months.
You know, the water would stay there
and if you wanted to get water you would be able to get water from there.

So that's why the upland forest,
the Wao Akua, Wao Kanaka
are very important
to have this groundcover of native trees,
and second level plants,
the shrubs to be groundcovers.

That is the ecological conservatory of water

like dew,
like the rain,
like a reservoir,
natural areas that recharge
our groundwater. It's critical
that we have this green biomass. If we cut it,
we create a desert. Inability of the land to hold the water,
that's why you have places like desertification. Overgrazing,
springs dried up and they allowed cattle unchecked. It wiped out
the watersheds and springs dried up. So the forestry in Hawaiʻi was actually

connected to the sugar industry because sugar,
who depended upon water, saw the impact
of cattle going up into the watersheds, denuding
the forests, and found that their springs and
streams were drying up
and so they made the connection.

You would think that's such an obvious
connection but it was out of greed
and tunnel vision that people just didn't see
the connection,
and allowed the overgrazing,
and unfortunately it's a problem
that is shared even among our own leadership.
So allowed the forests to be depleted,
the sandalwood trade and the burning of our
native forests
to get at the sandalwood.
Incredible environmental damage was done.

We are understanding the concept of Wao Akua,
Wao Akua.
Those are the upper reaches.
Those are the areas
where the most rare and precious plants are
and trees
and there are the forested areas,
the places where it's almost mystical
and these were the realm of the gods.

These are your primary watershed retention
areas.
Even traditionally there were areas that you
only went in
for a purpose,
to gather certain medicines,
to give homage to Kāne.
So it was an area that you just didn't tread on
and you went there very specific.
Wao Akua.
It's your most beautiful forest,
where your native plants live.
It's the realm of your ancestors in a sense,
your ancestral akua, Kāne.
And it feels sacred, even in going there.

And adjacent to that are areas we call
Wao Kanaka.
These were the upper reaches where
you could grow your ʻawa,
you could grow your banana,
you could grow your plants, even your taro,
that you could use.
But it depended upon the Wao Akua,
the moisture.
It's like your living watersheds,
that's your Wao Akua.
Next to it is your wao kanaka
and the system in Waiʻanae,
actually the system of land use in Waiʻanae
is reversed.

You think of the ahupuaʻa.
You think of water coming from the mountains,
which it does in all ahupuaʻa.
However in a lot of other kinds of ahupuaʻa,
the taro lands were down low,
like in Waipiʻo,
like in Hanalei,
like in Waikīkī.
The upper reached areas were your watersheds

and the streams brought the water down
to the lowlands where the huge taro fields were.

But in the Waiʻanae Mountains
because there was limited water, the taro lands were up high
in the wao kanaka areas, and that's why we have our loʻi in the uplands.
It's very rocky.
But it's hilled terraces.

And that's where the kalo was grown,
the maiʻa,
your lāʻī,
ti leaves,
your ʻawa,
even up higher.
Usually your ʻawa is right on the edge of the Wao Akua.
Places like that.

Your olonā that came from your Wao Akua.
Some of your medicinal plants,
your dye plants.
There were emergency areas
where plants were planted for times of famine.
So these were stashed away,
like banana and taro.

There's your kula land,
which is your midland,
your grasslands, kula land
which is more adaptive for sweet potato,
ʻuala.
And then your coastal lands
which is the land of the limu
and the maʻo,
your milo.
These are your coastal areas.
That is where your fishing areas were.
So those were the basic land divisions.

In the moʻolelo, in the chants,
there are chants that talk about changing
weather.
Every so many years you would have a shift.
You'd have different limu growing
and when the limu grew it would signal the
coming
of a different kind of wind that brought drought
and dryness.
And so when the limu would grow, the turtles
would come in and eat that limu.
That signifies a change.
Now that limu growth is, we think, connected
to temperatures of water, the sea.
Today we call that El Niño.

Over the years,
over the thousands of years that Polynesians
and their ancestors,
being people of the sea and having studied
this . . .
I mean you're talking about a couple of thousand
years at least.
Their scientists working, two or three thousand
years.
These ancestors, our ancestors
who were dependent upon the sea and coastal
lands,
they observed these things.
They could see these patterns.
But we see it in the chants on Molokaʻi
from Kumu Hula John Kaʻimikaua
that talked about when this wind would come
and this limu would come and would signal
them to redo their planting.
A period of drought was coming,
a period of drought.
It might last anywhere from three to five years,
a period of drought.
And when that happened
they knew that they would have to redo their
systems,
would have to grow a different kind of taro
that was more drought resistant.
You have to change your taro fields to sweet
potato,
gear up for sweet potato,
plant a lot of sweet potato
so you'd have a lot of the pulapula, the cuttings.
And then you would have to do mass planting.
You would be depending upon sweet potato.
The taro would not be abundant.

opposite

Loʻi kalo *at Kaʻala Farm, with the Waiʻanae Mountains in the background.*
Photo by Franco Salmoiraghi

And this they learned.
Because famine,
the memory of famine
that was linked up to other cycles of weather
and cycles of creatures and animals and seaweed,
that signaled different changes.
The names of the winds
and the kind of a wind that came from one direction,
the drying up of the land and the changing . . .
So all these things were observed
and they are found today in certain chants that were handed down.

For us to do our work,
I think it's first of all,
it's awareness
and getting the idea of water conservation
and the watershed
out of the political,
strictly strictly—
when I say political
I'm talking the worst scenario of political
where you're only trying for today—
look at my needs now and
only my back yard and
don't worry about somebody else's.
To really take a look at the long term impacts of what we do and long term planning and education of how we're going to conserve water.
How are we going to create a time of lessening dependency
on our natural resources, the depletion of those natural resources?
How are we going to be building and constructing things
in our homes and our plants along different lines of thinking?
And that takes a shift,
a shift in thinking.
But before that has to happen
we need to be aware that it's coming.

And the Waiāhole water is a perfect example of,
"Well, let's use Waiāhole water now and we need it for development of the 'Ewa Plain."

Well, okay, if we do that
then ten years from now or even less
we will be with the situation
where there'll be no water for any further growth.
We've already depleted the Waiāhole bank of water.
And now we're back to square one, we're in bigger trouble
because water levels,
dangerously,
underground water
reservoirs of water
are reusing water faster
than nature puts water back.
When that happens,
big trouble.
And that is where getting facts,
getting information,
getting people to own up to what's happening and saying,
better to stop now
and force decision makers
and force education
that people realize

we are in big trouble,
our children will be in big trouble.

Hālawa shaft,
you go to the Hālawa shaft water tunnel,
you will see the water levels for the past fifty years.
Go up to the Hālawa shaft.
When they first built that shaft, in December—
well they were building it December 6th, 1941.
    They were building that Hālawa shaft.
And that is the source of urban Honolulu's water,
huge reservoir of water.
December 7th they had to shut down.
But right after that they finished completion
    of the Hālawa water tunnels.
And you will see, that is the actual level of
    ground water,
of ground water.
And you will see what the ground water level was.
They have it marked in 1941.
You'll see the level in 1945;
you'll see the level of 1955;
you'll see the level of 1966;
and you can see it, where they first went there
and you can actually see it,
where that level was to where it is now today.
And now today it's way down.
It's an actual tunnel. And that is your ground
    water.
And if that doesn't tell you something.

Water has been falling on these islands
for thousands and millions of years.
When you think of geologic time vs. human
    time—
humans, it's like we've been here all the time.

In Western religions the humans are the center
    of the universe
we are made in God's image and all that.
But in geologic time you know
we're like a snap of a finger in a day.
That's human time.

So we better start dealing with this issue now.
Worry about it now while we still have it.
The time for action, to do something,
is now,
while we still have time,
although it's already at dangerous levels.

Like we said,
It has to flow.

Our bodies would die if we had no blood,
so the land would die if the water was gone.

The rain and the water are life giving.
That's its sacredness

As the blood in our bodies has to flow,
the water on the land has to flow.
The water on the land, the blood in our bodies
are the same.

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The following essays and poems have not previously been published and appear here with the kind permission of the authors: Alani Apio, "Giving Back"; Jan Becket, "Land and Literature: Teaching about the Hawaiian Forest"; Michael G. Buck, "Introduction: Rains Always Follow the Forest"; Eric Enos, with Gail Hovey, "Bringing Down the Water"; Sam ʻOhukaniʻōhiʻa Gon III, "Kāhela i Luna ke alo o Lanihuli"; Pualani Kanakaʻole Kanahele, "Native Hawaiian Environment"; Dennis Kawaharada, "Alive in Story"; A. C. Medeiros, "The Puʻolēʻolē Blows and ʻAwa Is Poured"; Anne Nanea Kahiwahiwa Rosa, "Honouliuli"; Jolie R. Wanger, "Sunset at Kaʻala."

The editors gratefully acknowledge permission to reprint the following previously published works:

Vickie Caraway, "Blue Hawaiʻi: Conservation in Paradise," from *Native Plants,* volume 18, number 1, Winter 2001. "Mea Kanu," from *ESA Today,* Winter 2001.

Sam ʻOhukaniʻōhiʻa Gon III, "Think Mauka," from *Honolulu Weekly,* January 1–7, 2003.

Kapulani Landgraf, from *Nā Wahi Kapu O Maui* (Honolulu: Māhoe Mua, 2003).

W. S. Merwin, "Rain at Night," reprinted from *The Rain in the Trees* (Random House, Inc., 1988).

Rob Pacheco, "Inventory of a Koa," reprinted from "Reading the Land: Monthly Essays by Rob Pacheco," Web Site of Hawaiʻi Forest and Trail <www.hawaii-forest.com>, 2002; also in *Growing Koa: A Hawaiian Legacy Tree,* edited by Kim M. Wilkinson and Craig R. Elevitch (Holualoa: Permanent Agriculture Resources, 2003).

Nainoa Thompson, excerpt from "Hawaiʻiloa: 1990–1995: Articles by Nainoa Thompson," Web Site of the Polynesian Voyaging Society <www.pvs-hawaii.org>, 1995; also in *Growing Koa: A Hawaiian Heritage Tree,* edited by Kim M. Wilkinson and Craig R. Elevitch (Holualoa: Permanent Agriculture Resources, 2003).

Quentin Tomich, "The Loulu: Our Native Fan Palms," from *Hamakua Times,* August 1999; "Ōhiʻa: Adventures with a Genetic Marvel" appeared as "Adventures with a Genetic Marvel: The Ōhiʻa Tree," in *Hamakua Times,* February 2000.

Directed by Jolie Wanger, Information and Education Specialist for the Department of Land and Natural Resources, Division of Forestry and Wildlife.

Edited by Frank Stewart, with Jolie Wanger and Barbara Pope.

Copyedited by Ken Banks and Sally Serafim.

Art selected by Barbara Pope, with Jolie Wanger.

Captions written by Jolie Wanger, with assistance from Vickie Caraway, Scott Fretz, and Barbara Pope.

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Published in 2003 by the
Division of Forestry and Wildlife
Department of Land and Natural Resources
State of Hawai'i

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ISBN 1-883528-25-9
LCCN 2003096252

Designed and produced by Barbara Pope Book Design.

Printed in China.