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tiny butterfly moves San Bruno Mountain By Ellen McGar

verywhere, the wnell of eucalyptus fills the kog, it is morning, mid-July, and the trees lie dead in piles along the side of Guadalupe Canyon Parlovay, the road that cuts over San Bruno Mountain, an asphalt scythe through the grass, If it weren't for the log it would be possible to see San Francisco, just over the county line to the north, sugar cube houses on lea-colored hills that spill one over the other down to the bay, but on this morning the mountain in its own world, just beyond the city limits, entirely apart. Here, 10 ntiles from downtown, biles of wood lie in shipmrecked waves, limbs in splinters, littered with leaves. A wasteland of shash and scrap, studded with stumps that stick like stubbed toes up from the cracked, black earth. This is ground zero the starting point of the many-sided battle for dominance of San Bruon Mountain, the last wild remnant of what was once a floud of grass and shribs running from breakers to bay and the casualties, already, are too numerous to count. Aweinspiring carnage indeed, all for the sake of an inch-long insect called the Mission Blue.

Perhaps you have heard of the Mission Blue. It is a butterfly, violet blue, not much wider than the letters of its first name printed here. For two weeks in the early summer of every year, just after the rains stop, the Mission Blues on San Bruno emerge from their papery eccoons and take to the air, flying dizzily — drunk, perhaps, with the sun after their lung year underground, or with the explosion of flight

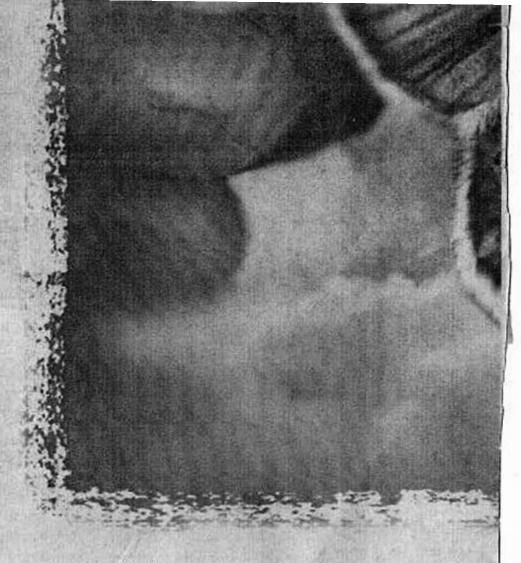
ELLEN MCGARRAHAN eight-leaked flowering plant called the

lupine. On the lupine, the Mission Islues more and drink trectar and lay eggs and die. The learning inanioides — the Common Blue — is a butterfly found from British Columbia to Southern California, east to the Dakotas, south to New Mexico, but the Mission Blue, a subspecties, learning index missionensis, lives almost exclusively on San Bruno Mountain. Primarily for this region, the Mission Blue is an endangered species, protected by the provisions of the federal Endangered Species Act.

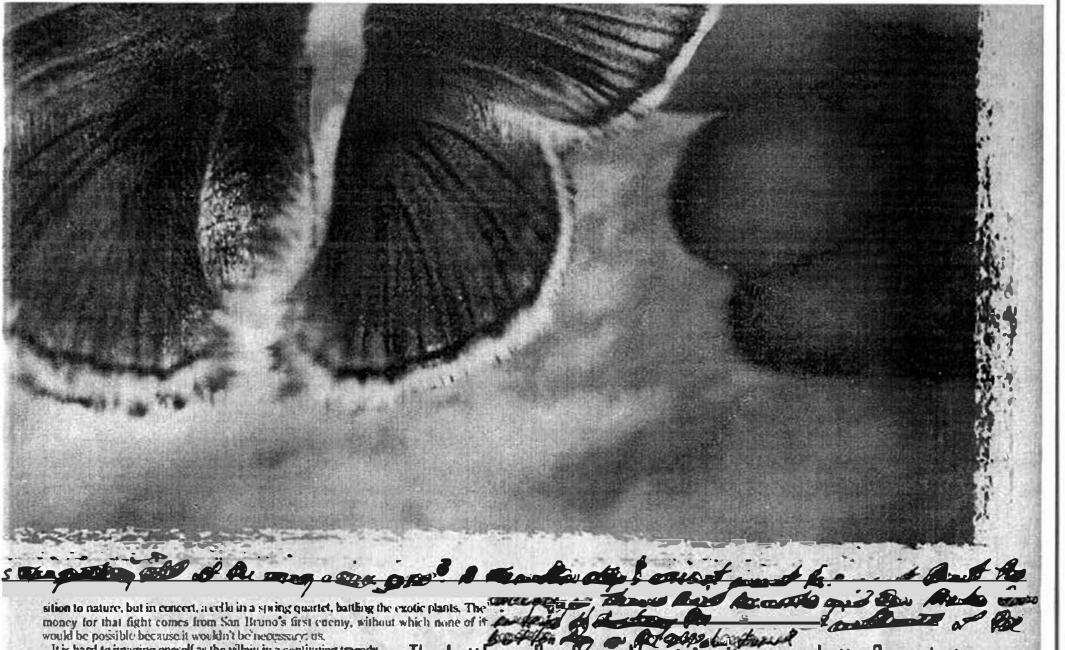
The best — the only — way to save an endangered form of life is to protect its habitat. But protecting San Bruno Mountain isn't as simple a matter as it might seetu. Draw lines in the sand up there, and the sades surprise:

One side is humankind, of course, With our condos and roads and Cow Palaces and quarries, the ever-encroaching urbanization of modern society poses a major threat to the mountain, no doubt about it. Another side is nature. San Bruno is a hish and complex place, woven with wildflowers, faced with streams, brushed with birds, powdered with butterflies, the most delicate dance imaginable. And if the problem with the mountain were to stop there — man vs. nature — it would be easy to think about, even easy to solve, Save the butterfly? Stop development. Unfortunately, nature is trickler, sometimes, than we give her credit for.

Because on a third side of the battle over San Bruno Mountain, there's



nature again — a different kind of nature, unnatural to this place, to California: invading plants like eucalyptus and gorse and strange grasses, rapacious weeds that vanquish the native grasslands in the race to survive. One of the casualties of this contest is color. The alien grasses die back in the summertime, turning the mountain brown; native grasses sleep through summer, bright silver, an absence of hue as beautiful as the green that comes with the rains. Some of the exutics are green, though — the gorse, for example; long green thorns glowing even in ghost light. Here in the Golden State, where summer is the dominant season, the compulsion for green in the heaf has gotten native plants into trouble. Left to their own devices, the exotic encafyptus and gorse and the ivies and broom and blackberries and mustard, summer greens all, could take over the mountain from the silver grasses faster than development ever could. And so, on the fourth side, there's humankind again — not in oppo-



sition to nature, but in concert, a cella in a spring quartet, battling the exotic plants. The money for that fight comes from San Bruno's first commy, without which none of it would be possible because it wouldn't be necessary; us.

It is hard to imagine oneself as the villain in a continuing tracedy. but on the other hand, the face in the mirror never lies. In the Bay Area, we have poved the grassy hills, steered the streams into concrete gutters, built missile bankers in the headlands, dredged the harbor. filled the bay, obliterated the wetlands, and smogged the sky. There is nowhere on the Peninsula left of what was no feral place the hand of man hasn't mauled — nowhere, that is

except for this few thousand aires on a hillside so steep that developers didn't get around to building on it antil the rules of Continued on page 12

The battle on San Gruno Mountain pits a rare butterfly against exotic trees, environmentalists against condominiums, and poses the question: How much nature is natural, anyway?

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Mission Continued from page 11

the game had changed. And now that nature is under siege up there, enemies on the outside, and enemics within, the question is this: ls it possible to save a butterfly by turning back the hands of time? Or is it too late? And if it is too late - well, what happens then?

11 is possible that you have been deceived by San Bruno Mountain. Because from afar - which is to say, from the highways that collar the mountain, headlights like pearls around a wrestler's neck - San Bruno Mountain is ugly indeed. This time of year, from a distance, the mountain is brown, a muddy nikirange yellowish brown, the color of a recommunity, of a 1970s station wagon parked and immobile on the side of the road. The mountain is huge, as well, a brown skyblotting monolith just west of Candlestick Park, tocholds away from San Francisco itself, a giant slice of outback-looking grass and dirt right at the edge of the city's collective back yard. Driving hast it, you can't help but dismiss it. Walk up onto it, however, and the mountain is a whole different place.

On the high reaches of San Bruno, wild orchids grow amid native silver grasses gone

dormant in the summer heat low shrubs. their stems like dark lace beneath crowns of wind around leaves, offer different errens some closer to gray, some closer to yellow. There is campion, an endangered pink flower; and paintbrush, bright orange and vellow; and lizard's tail, green plants named for the shape of their leaves. There are rare manzanitas, growing low to the ground beneath the wind that comes in from the occan, and wild violets, yellow and purple. Wild iris, gone to seed in the summertime. shed round beads into the parched soil. which cracks like broken skin in the daylong heat. Everywhere, there is the sound of the mind.

Un occasion, hald eagles and golden carles have been seen on San Bruno Mountain, Vireos, hummingbirds, kestrels. owls, quail, and flickers, too. On San Bruno Mountain, there are three kinds of rare butterfices. There's the Mission Blue, of course. which lives in the grasslands. There's the Callippe Silverspot, as well, which isn't listed as an endangered species because it shares the same habitat as the Mission Blue, laving its eggs on the wild violets that grow in the mountain's open areas. And there's the San Bomo Elfin, a smaller brown bug that lives in

the brushland. The San Bruno Elfin is a listed butterfly, because it is found almost exclusively on the mountain, but its babitat the brush, isn't as threatened by developmore and other forces as the grassland is.

Up until 30 years ago, San Brune Mountain was largely untouched by the development that had transformed the rest of the San Francisco Peninsula from a land of wild grass into an urban city. Part of a Spanish land grant made in 1837 to Jacob Lessee, a nahoralized Mexican citizen, Son Bruno was acquired by the Crocker Land Co. in 1881. For the next 80 years, cattle grazed the mountain's wide shoulders. Then, as urbanization crawled south from San Francisco and north from San Jose, developers' eyes fell onto the open spaces of the mountain, and the modern history of San Brano began

In 1965, a proposal was made to lop off the top 200 feet of San Brune Mountain and use the earth — 200 million cubic vards of il to fill in San Francisco Bay for the airport. But the idea didn't go over well in the towns - Daly City, Brisbane, Colma, South San Francisco — that surround San Bruno, and for 10 years, developers backed off. Then, in 1975, a combany calkyl Visitacion Associates proposed building 8,500 homes and 2 million

square feet of office space on the mountain. "An intensive political battle ensued," county records note, resulting in a court fight between San Mateo County and Visitacion. In 1980, the developers and the county reached a settlement: The developers would be allowed to build in exchange for the donetion of 1,650 acres to the county and 298 acres to the state of California for parks, Two weeks after that deal was reached, the United States Fish and Wildlife Service notified Visitacion that an endangered animal the Mission Blue butterfly - called San Bruno home. And that meant that everything was again up in the air.

What happened next is still controversial. more than a decade later. Rother than sticking it to Visitacion and shutting down the mountain to all new development. San Mateo County sat down at the bargaining table with the developer. As county slanner Roman Gankin, who was there, remembers it, "there was every possibility that they could take this all the way to the United States Supreme Court, and test the Endangered Soccies Act. I don't think anybody wanted that." The result was something called a "habitat conservation blan" (HCP), a formal congressional execution to the Endangered Species

company that manages San Bruno's habitat conservation plan for the county. Harris is the point person for the plan - she monitors the construction, talks to construction workers about respecting the environment, and helps to write the annual reports that list butterfly counts and exotic plant destruction. An energetic, friendly woman, Harris can spot an exotic plant from the driver's seat of a moving car at 45 mph. After lunch, she takes me and field biologist Lion Baumgariner out for a spin.

We head south along the west side of the mountain. We pass Calma's green comoteries, their grass like the felt on pool tables heneath the high brown tableau of the mountain. There's a nursery in here, to the left, and we turn down a dirt road into it. Look they're selling blue gum eucalyptus in pots, the exact same trees that lie in shorn piles on the other side of the mountain. Harris points that out, and we drive to the end of the road, where she stops and looks up at the mountain. There, a stand of silver dollar eucalyptus is making its way slowly up the south slope, leaves like shiny coins against the bright summer grass.

They escaped from the nursery. Harris says.

It is past 1 o'clock now, and the sun beats down. Harris drives slowly all the way around the mountain, to the Northeast Ridge, where there are huge graders working to level steep slopes of

the mountain, the dust rising yellow up off the ground. Part of Harris' job is to monitor the development on the mountain, so we stop in to see Tim Wellman, at Coscan Davidson Hernes, which is doing the building. Harris and Wellman discuss having her talk, again, to the guys who are running the big trucks out there, about making sure they're following the laws and not buildozing where they shouldn't be. Harris says she'll stop back by.

Then we're off, having almost completed the circle around the mountain. Just short of the parking lot where we started this morning. Harris pulls into a turnout on the side of the mountain, parking in a dust cloud of bluewhite gravel. A path leads up the ridge, the gravel bone white in the bright sun.

Our walk takes us past mole holes where Baumgartner says black widow spiders live. All around us are swallowtail butterflies, chasing each other in spirals through the air. In the crass Callings Shimeoners to make the



Northeast Ridge, where Mountain Manager: Victoria Harris keeps take on San Bruce there are huge graders work- under the haddat conservation plan.

nince 1982, some 700 homes have been built on San Bruno Mountain. Nearly 1,300 more homes have been approved under the habitat conservation plan. On the Northeast Ridge, the part of the mountain that most directly faces San Francisco, Coscan Davidson Homes is starting construction in what some people say was some of the best Mission Blue habitat on the mountain. Over on the other side of San Bruno, facing the Pacific and the strip malls of Serramonte Boulevard, another project. Terabay, is due to start construction by the fall. All sold, development has eaten up 372 acres of the mountain. There are 2,741 acres set aside in conservation. Another 216 acres are, as yet, undecided. Between the areas under construction and areas in conservation, there is a fence dotted with white warning signs. Two worlds back to back with each other, connected by one thing, money,

Under the terms of the habitat conserva-

Act, that allowed destruction of Mission Blue habitat by Visitacion and other developers in return for conservation elsewhere on the mountain. It was an idea — balancing the competing interests of developers and environmentalists — that was to take hold across the nation. Although, as it turns out, protecting habitat from development is one thing. Protecting it from itself is another.

Up on San Bruno Mountain, there is a place called April Brook, because in the spring the water runs there. Until recently, the water in April Brook ran through a glade of eu calyptus trees. Now the trees lie in huge pikes on the ground.

"We've got to get going on this area here," plantier Gankin is saying. "It's got a lot of

loose areas that have to be stabilized for the rains."

It is midmorning, mid-July. A group of people has gathered at April Brook to talk about putting native plants back where they once belonged. This is the first place on San Brono that the restoration will happen. It's a test place, in a way, Five acres of figuring things out.

Among the people Gankin is talking to is a man named Paul Kephart. Kephart is a botanist, a native plant expert from south of Santa Cruz who has been on the mountain since dawn this morning, gathering plants and seeds. It's Kephart who'll be doing the restoration of native vegetation on San Bruno. Already, in a nursery south of Santa Cruz, he has San Bruno seedlings sprouting

in blastic bins. Kephart is tall and blond and direct. The dashboard of his car is full of plants.

"We need to be in here to start planting and seeding by November 3, 4, 5 at the latest," Kephart s, ays."As soon as we see the rains, we'll see a lot of cucalyptus."

In fact, they're already seeing a lot of everhyptus. Eucalyptus is difficult to get rid of, if that's what you're trying to do to it. Can't cut it down — the stumps sprout. Can't burn it — the trees explode seeds. Can't spray it once and walk away — keep on it or you'll see more cucalyphis than you want to.

Over lunch, Kephart outlines his plan for April Brook. The felled trees have been left in huge piles by the logging company that San Mateo County contracted to clear-cut

the forest. Plus, the loggers have cut a deep shelf into the side of the April Brook ravine. Both of these things are problems: The slash lumber has to be cleared and the shelf needs to be restored to its original slope before evergrating. Then the trick will be to keep the weeds out long enough for the native plants to take hold, a balancing act. The plan Kephart talks about, sketching it out briefly. seerus uncomplicated but labor-intensive: Spray the heck out of the cucalyptus stumps. which were also left by the loggers when they cruised through. Then move in with native plant seedlings from the gursery. Wrap little collars around each seedling, to keep the eucalyptus spray off them, then suray some more. Get schoollaids out there to distribute seeds, lay kraft paper on the ground to discourage the invasive plants from sprouting, spray some more, and keen a careful eye on things.

Talk turns to herbicides. The ones they're using on San Bruno trick the plants into thinking they're taking in nutrients—specifically, nitrogen—from the soil, so when the plants are sprayed, they open up and suck it all right in. Figuring nut what sprays to use has taken some time.

"It kind of fakes the plant out," Maria "Alvio" Baggett, one of the herbicide applicators, says.

"It's taken us seven years to figure out the proper solutions." Mike Forbert adds. "But I've gotten to the point where now I've got a mediod that works. I can see results."

Victoria Harris is, in a sense, in charge of things on San Bruno Mountain. Harris works at Thomas Reid Associates, the Palo Alto-based environmental consulting

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Magnitude Man: San Matoo County planner Roman Gaskin

Take some Mission Blue land here, pay to pull gorse off themountain over there.

In some quarters — most noticeably, in tolitical arenas from local city halls to the U.S. Congress — that's seen as a mighty fair swap, a bargain in which everybody wins. People get houses, animals get land. What could be better? And in the years since San Bruno Mountain became the site of the nation's first habitat conservation plan, those kind of plans have been put to work, in one form or another, in 36 other places, with 150 more applications pending.

Yet not everyone likes the San Bruno Mountain habitat conservation plan — either

in theory or in practice.

There was a big problem with the approach, which is that they traded the prime habitat for the lesser habitat. It was a flawed approach from the start. The concern was that if you tried to get what was the best environmentally that it would seem so outrageous that the Endangered Species Act would go down in flames, says Julia Butt. of the Sietra Club. "My heart says, 'Hey, we started wrong in the very beginning. We should have protected the best habitat. You don't give away the best liabitat and take something marginal and say it works. Noncificless, that's what we have to work with so it's kind of our charge and our responsibility to take what's on the mountain.

Last spring, the Loma Prieta Chapter of the Sierra Club hosted a forum on San Bruno's habitat conservation plan. Criticisms ranged from the general to the specific, with focus on two problems: The plan, critics said, has no provision for outside review, which means that the people who administer the plan are the ones in charge of deciding whether the job they're doing is adequate.

In addition, the critics said. San Bruno's conservation plan contains ncither long-range goals nor the kind of retrospective studies that would allow perspective on whether the exotics removal is working. Put those two things together, and there's really no way to tell what's actually happening to the habitat up there on that mountain.

"The plan was loosely written. It did not require any set goals, it didn't have any measuring devices, it was just counting butter-flies, which are really essentially meaningless," says Jake Sigg, of the California Native Plant Society, which is active on San Bruno Mountain.

Each year, Thomas Reid Associates submits an annual reportion the mountain to San Mateo County. The reports, which date back to 1980, when Thomas Reid Associates first began studying the mountain, contain detailed butterfly enumerations and ancedo-

"My cricism of the implementation of this plan all along has been the fact that weeds are overrunning the mountain. There is no restored habitat, and the population base of the weeds is growing all the time. With every year that passes the situation goes on." Sigg says. They have no data, they have no records showing what they've done."

That, however, seems about to change. Thomas Reid Associates recently hired a person to study the reports to see what has worked and what hasn't worked in terms of removing the exotics.

"We should develop some idea of what we could expect," says Lawrence Kobernos, the

new hite.

low, all the development that affects San Bruno Mountain isn't residential. There's commercial, too Consider the fate of Gus Pedemonie, whose Colma dump backed up. literally, onto some protected habitat. Pedemonte had to fork over \$40,600 in lines to repair Mission Blue landscape, although the money wasn't spent on San Bruno Mountain but on the Milagra Ridge, above Pacifica, where another little isolated colony of the bugs lives. And on the very top of San Bruno is another conumercial development one that has sparked the most vehement opposition to date of the habitat conservation plan. The peop le who don't like the towers call themselves Bay Area Land Watch, and they're suing San Matco County.

The radio towers rise like skeletons on top of the ridge. They have been there since the days of entile grazing, before the Endangered Species Act and the habitat conservation plan. At present, there is one satellite station and 10 towers, mushrooms in a forest of skeletal steel. Last year, according to the lawsuit, the owner of the mountain-

top, a company named Watson Communications. proposed adding 32 new dish salellites, 10 new equipment shelters, a 10,000. new square foot building, and. for the tirst time, two places for people to Thomas Reid studied the proposal and recommended to the county

that it be approved. The county approved it, and forwarded it on to the United States Fish and Wildlife Service, which has final jurisdiction over all things that affect the Mission Blue. Bay Area Land Watch surd.

The proposed project may injure or kill these endangered species." the lawsuit alleges, enumerating the Mission Blue and San Bruno Ellin butterflies. In addition, the proposed project will cause deterioration in the skyline view of the Mountain, decressed use of the Park trails during construction activities, as well as exposure of hikers to

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Decine of Devestation: Paul Emphast: will here blasted succetypins into native granes.

exotic species, the attempt to revergelate would be happening without the Mission Blue butterly. Certainly the presence of an endangered butterfly has given the mountain the money and the management not otherwise available to it. But onagine, for coample, if the Mission Blue were not a butterfly at all. Imagine it as an insect without delicate blue wings and a frilly light-blue thorax imagine it with a hard carapace, a shiny brown airborne beetle the color of dung, with placers and hairy legs and a sthuring bito, Imagine if it were, simply, a caterpillar — green, oozing gooey liquid from the pores on its pulpy skin that never transformed itself, never took to the air, spent its whole life underground, emerging only to sting and die. The bug could still be protected by law, still fought over and litigated about, but would the light stir the same emotions? Would it seem worthwhile if the Insect at issue was hornible to look at, or dengerous to touch?

trees? Trees that are beautiful, to some, in their own right? Can you trade beauty for beauty? Or, in doing that, is there a loss somewhere—one that cannot be recompensed?

When the city of Brisbane, on the eastern slope of San Bruno Mountain — houses on the flatlands and up on the mountain itself — learned that the eucalyptus trees along Guadalupe Canyon Parkway had been cut down, there was no rejoicing in the streets. Quite the opposite. So much so, in fact, that the city filed suit to stop the logging.

The people in Brisbane, because they live on the mountain and the park's in their back yard, have a real love affair with the mountain," City Planning Director Carole Nelson explains. The people feel the mountain is a totem for them, It protects them, and keeps them safe, and If the mountain's OK then they're OK. ...

"When the cucalyptus cutting began and we found out that it wasn't selective cutting, it was clear-cutting, we sued because we thought it was a violation of the park," she says.

The native plants and the Mission Blue butterfly are important values within the overall park. There are other values. There are aesthetic values and there are recreational values, "says Nelson.

In other words, there's a trade-off. And that's the source of the conflict, in a nutshell, with the Endangered Species Act. In forcing Americans to think about the creatures that live among us, the act requires us to con-

sider the role that nature has in urban society. And sometimes, it's easier to think about nature in other places — other people's back yards — than it is to deal with the consequences of saving what wildness is left right here, right now.

One of the interesting things about the biodiversity debate — the idea that all forms of life are worth saving, no matter what — is that it has tended to focus on places like the rain forests of South America. A recent book by Harvard biologist Edward O. Wilson, for example, opens with a stirring account of a thunderstorm in forested Brazil:

"In the Anazon Basin the greatest violence sometimes begins at a flicker of light beyond the horizon," Wilson writes. "... We pray there will always be a world like this one at whose edge I sat in darkness. The rain forest in its richness is one of the last repositories on earth of that timeless dream."