Natives of Niihau still capture and eat natural delicacies whenever possible, such as this turtle being wrestled to the surface.

THE LAST PARADISE

Wilmon Menard

IN 1959 America's mid-Pacific territorial island of Hawaii was granted statehood, making it the 50th state of the United States. But this act of Congress has not changed the status of the westernmost isle of this sunny eight-island archipelago, which Mark Twain called: "The loveliest fleet of islands that lies anchored in any ocean." The island of Niihau, 17 miles southwest of Kauai Island, has a large sign on it which reads: "KAPU!" *Kapu*, in the Hawaiian language, means "Keep Off," or "No Trespassing." And it means just that. Private property is private property — and so Niihau has been for almost a century.

If you are of a curious or challenging nature, and attempt, uninvited by the owners of Niihau, the rough channel voyage from Kauai to this small privately owned island — whose silhouette from afar resembles a whale basking on the surface of the summer sea — you'll find that you can legally approach no closer than the prescribed below-high-water mark on any Niihau beach. And so marooned, you might find it extremely dangerous and uncomfortable in the event of a gale or storm. And if you should sneak ashore unobserved, or under cover of darkness, you are sure to be quickly discovered, placed in custody of the Hawaiian residents themselves, and your nose unceremoniously pointed back to the direction from which you have come.

On your illegal expedition, if you have an observant mind, you'll find that there are no harbors for ships to dock or anchor on the island's six-by-

ers, a boutu-type Amazon dolphin from Iquitos. Whiskers had been obtained by the San Francisco Aquarium Society, arriving September 24, 1964, at a weight of 49 pounds. He gained steadily until his weight reached a plateau in the range of 69-75 pounds, where it remained for some 18 months. Since his blood count and general activity indicated good health, the diagnosis made by all of Whiskers' human friends was that his malaise could only be due to lack of companionship. Following the arrival of Buddy, Whiskers gained nine pounds in the next four months and at the same time Buddy gained 16 pounds. All of which bears out the theory that since dolphins are community animals, rapport between members of the group is an important factor in the well-being of captive species, especially the freshwater varieties.

One of the sidelights in the study of Whiskers' and Buddy's health by routine monitoring of their blood was the interest of Dr. Nicholas Petrakis, of the University of California Medical Center, in dolphin chromosomes. He found that Whiskers' and Buddy's white blood cells could be grown in culture in the same manner as human white cells, and that the chromosome number could then be determined from these dividing cells. The chromosome count for Whiskers and for Buddy was found to be 42; this was verified by similar information from the blood of freshwater dolphins at San Diego's "Sea World." Of the nine species of dolphins, porpoises, and whales for which chromosome counts are known, all have 44 chromosomes with the exception of the Amazon freshwater dolphins and the sperm whale, both of which have 42. What these two have in common is still a mystery.

Many events have transpired in the freshwater dolphin field since the first two boutu were brought to Florida's Silver Springs in March of 1956. Having heard of this event, I bought a new movie camera, packed the family into the station wagon, and travelled across the country to film the boutu's activities. Although Dr. Caldwell has records of some 70 living boutu being brought into the United States since that time, their longevity has not been good. At the present time (November, 1966) only 19 are alive in zoos and aquariums. The longest record of captivity is held by the James R. Record Aquarium of the Fort Worth Zoo (1 male and 1 female, each 4½ years), followed by Toledo Zoo and Aquarium (1 male, 3 years); Steinhart Aquarium (1 male, 25 months; 1 male, 1 year); Sea World (1 male, 18 months); Shedd Aquarium (1 male, 11 months), and Marineland of Florida (8 males, 3 females, all 3 months).

Many problems still need to be investigated in this fascinating field of freshwater dolphin research. Outstanding in this regard is the mystery of the Susu, the so-called blind dolphin of the Ganges and adjacent river systems. Whether this species is able to make up for its lack of vision by using a well-developed sonar system is just one of the questions that may be answered when these animals are available for study in an aquarium for the first time.

Recording weights of Steinhart Aquarium's freshwater dolphins.

twenty-mile coastline, no airfields, passenger automobiles, phonographs, telephones, electric lights, nor tobacco, coffee, whiskey, gin, beer — or soda pop. There are no public buildings, movie theaters, and no court-house or jail (crime is non-existent on this island), no tax-collectors, missionaries, psychiatrists — and no orphan asylums or mental institution. The Niihauans have never heard of Russia's Khrushchev, Sopia Loren, or Frank Sinatra. They likewise have no comprehension of hydrogen bombs, or space-satellites exploring outer space or circling the moon. And babies are still delivered by Hawaiian midwives, with a very low infant-maternal mortality rate. It is evident that time has stood still on Niihau, and it's apparent, too, that the Niihauans' paramount interest is to live simply and happily, unaffected by civilization.

The seventy-one year old bachelor-millionaire Aylmer Robinson, still wiry and tanned as a Texas cowboy, is the owner-manager of Niihau, and he has this to say, in substance, about the island being *kapu,* or prohibited, to visitors, tourists, or prying crusaders: "There can be no half-way arrangement about Niihau and the approximately 250 nearly pure-blood Hawaiians living there. They, by free choice, have chosen to live quietly, peacefully and healthfully, with an instinctive return, as is feasible, to their diet, their old customs and traditions, fishing, and native handicraft. We just don't feel that they should be exposed to publicity, cameras, or tourists, who would come solely to gawk, Ooh-and-A-ah!, and photograph them, as if they were freaks in a circus sideshow."

He explained, also, that for years there had been no communication system connecting the island with Kauai, except by primitive signal bonfire on a cliff facing the 18-mile-distant Makaweli headquarters of the Robinson family on Kauai, or by carrier pigeons — which on many occasions did bring immediate assistance by the family's inter-island sampan *Lehua,* aboard which carrier pigeons were caged in case of a breakdown of the motor. But in April of 1960, a radio communication system was installed in Niihau, linking it with a station on the Robinson property at Makaweli, and still another on a new boat operating between Kauai and Niihau.

Aylmer Robinson further remarked: "Some investigators, senators from Honolulu, enacted special legislation to 'invade' Niihau in 1946, thinking that we were maintaining a 'feudal island state,' and using the Hawaiians as 'serfs.' They snooped all over the island, and were quite chagrined to find that the Niihauans were happy and healthy. But they did make a lot of demands about schooling, public roads, and buildings. Today, there are still good teachers running the *family* school on Niihau, but instead of the former limit of the fifth grade, the curriculum now goes through the eighth grade, with the right to go to high school in Kauai, if they like. But cow and sheep trails are still the 'public roads' of the island."

Whenever cattle are to be moved from Niihau to neighboring Kauai, they have to be hauled forcibly through the surf to the boats.

Left, Niihauans still favor the casting-net for catching fish running offshore. *Above,* Niihau's Kii Beach, rocky, romantic, and unapproachable. *Below,* Niihau is at the northwestern tip of the main Hawaiian archipelago.

The Robinson family's reasons for keeping Niihau as a sort of anthropological preserve for their Hawaiian wards have rather sound logic, particularly when you consider the lamentable and swift pace of extinction of the pure, or near-pure, strain Hawaiians in the eight-island archipelago. The pure-blood Hawaiians numbered 300,000 in 1779; in 1832 they had dwindled to 130,000; only 49,000 could be counted in 1872; and the last U.S. Bureau of Census Report lists only 12,000 near-pure Hawaiians.

When you approach Niihau, the aspect from the sea of black basalt cliffs and promontories does not promise a scenic paradise. But once clear of the whale-boat landing-beaches of Nonopapa (in summer) and Kii (in winter), and proceeding in a southwesterly direction along wagon-wheel ruts that might have been made by a 49er prairie schooner, the scenery changes. Now there are wide pleasant meadows of indigenous grasses and Australian blue-grass, dotted by clumps of hardy *algaroba* (mesquite), and occasionally the perennial pennants of Polynesia, the coconut palms, nodding their delicate tracery of fronds in the trade winds.

There are over a thousand roan, Durham, and Shorthorn cattle and about 12,000 Merino sheep grazing contentedly over the sunlit grassy slopes, descendants of the original stock brought from New Zealand by the Robinson forebears. There are sudden flights of protected plover, the gobble of over 3000 plump turkeys, almost tame pheasants, ptarmigans, and strutting peacocks, from whose plumage the Niihauans fashion the expensive hatbands and *leis* (neck-wreaths) to supply the smart tourist shops of famous Waikiki Beach in 100-mile-distant Honolulu.

But it's the first glimpse of the tidy village of Puuwai, with the merry communal movement between the separate rock-fence-enclosed homes, covered with night-blooming cereus and *bougainvillea* and bordered by gardens, that convinces you that these Hawaiians are genuinely happy and contented in their isolation. Their gay laughter and conversation are like music, their handsome, open faces free of worry-wrinkles, their eyes sparkling and friendly.

Boredom never afflicts them. A *luau,* or feast-celebration, is called on the slightest impulse, to which everyone is invited, and sometimes these feasts last for an entire week; the girls and women gather *pu-pu* shells on the beaches with which they fashion their distinctive shell-necklaces and costume jewelry; they weave soft *makaloa* mats of fiber which bring big prices in the tourist marts of Honolulu; the men go deep-sea fishing for the gamy marlin and swordfish; and their favorite sport is to pursue a wild boar on horseback, vaulting off when close and, seizing it by the ears, slit-

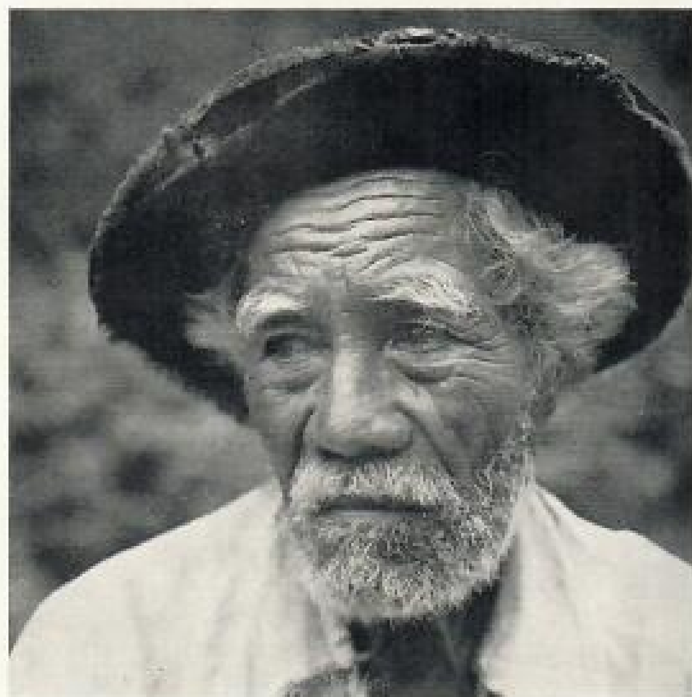
ting its throat; they play volley-ball, cricket (introduced a century ago by the Robinsons), swim, and surf. Some of the husky, more daring, saronged youths of Niihau go out through the surf into deep water, armed with sharp knives to kill man-eater sharks in fierce battles.

The population of Niihau, by necessity, has to be limited to about 250 people. This to avoid the economic hazards occasioned by overcrowding, and to keep the total population in ratio to the natural foods available. If there is a vacancy, by death or anyone electing to live permanently elsewhere, the replacement must first be approved by the Robinson family, and then by the Niihau 60-family council. But it is the shortage of water that is the strongest deterrent to excess residents. There are no streams, rivers, or lakes on Niihau, and drilling wells has tapped only salt water. Water holes have been scooped out in the cattle and sheep grazing areas, which fill with rainwater, and Arizona cacti were planted long ago, whose thick pulpy leaves furnish water and food, thus reducing water requirements to a minimum for the ranging livestock. There are a few brackish wells suitable for the cattle and sheep, but during exceptional periods of drought the cattle are secured by their horns to the sides of whaleboats and the crossbars of native outrigger canoes and slowly ferried across the channel to Kalalau Valley on the Napali coast of Kauai Island, which is also Robinson-family owned. This makes for a strange sea procession, with the natives poised vigilantly with rifles for signs of marauding sharks.

The necessity, because of water shortages, to hold to a safe limit the number of livestock on the island has necessitated the Niihauans exploring other sources for the development of lucrative occupations, such as commercial fishing, net-making, mat-weaving, manufacture of curios and charcoal, and honey culture from the *Keawe* (mesquite) blossoms.

With only a few outside Hawaiians permitted to enter this paradise, it is understandable that the Hawaiian racial purity or near-purity has been made possible by a certain degree of inbreeding.

The Robinson family have a strict rule about the Niihauans, purely because of restlessness or boredom or curiosity, leaving the island for long periods. If a Hawiian does go off without permission, he or she, depending on the circumstances, might not be permitted to return. There is a reasonable premise for this edict. "There are the dissenters, the agitators, the non-conformists, the smart-alecs in every community, no matter where it is,"



Pure-blooded Hawaiians of Niihau. A youth, an old man, and a woman stripping *lauhala* (Pandanus) leaves for making into hats, baskets, and mats, which are shipped to Honolulu for the tourist trade.

Top, a grass shack of the type once occupied by the natives of Niihau. The leaves are of sugar-cane. *Above*, some Niihauans still prepare their *poi* with ancient stone pestles in the primitive manner.

explained Aylmer Robinson. "We can't have these malcontents coming back into the island, after skylarking in the City (Honolulu), to boast, ridicule, draw comparisons, and create dissatisfaction and confusion, purely because of personal rancor. Cynicism and disillusionment are the snakes of any paradise, and we try to keep them out of Niihau."

There are, of course, the case histories of those who have left. One departed to work in a Waikiki Beach hotel in Honolulu and, hoping to give his father a glimpse of the new exciting "modern world," sent back a phonograph and several rock 'n' roll recordings. But his father refused to accept the machine when it was handed to him at Nonopapa beach. "Nice and quiet now on Niihau!" he snorted indignantly. "No noise-boxes needed here!"

Another was lured away by the stories of the bright lights of Honolulu, where he obtained a job washing dishes in a restaurant. He ate strange foods, drank rum and beer, saw strip-teasers in the burlesque houses; he learned to shoot dice, to smoke and swear in English, and to chase the *hula*-girls. But within a month he was back, tears running down his cheeks, twenty pounds thinner, begging the Family to accept him back to Niihau. The Robinsons decided that the errant islander, in a state bordering on complete nervous collapse, would serve as a living testimonial of the dubious benefits of civilization, and so he was sent back to Niihau, from which he has never strayed again, not even to visit nearby Kauai. His one fling was sufficient to last a lifetime.

The four Robinson brothers, Lester, Selwyn, Sinclair, and Aylmer, who jointly own Niihau, and are millionaires many times over, have all been educated in American universities, and so have their children, many of whom have married and entered lucrative businesses in the States. Each one seems to have inherited something of the resourcefulness and practicability of their British naval captain forebear, and particularly of the amazing foresight and stamina of the first matriarch of Niihau—Eliza McHutcheson Sinclair.

A farm in Craigforth, Scotland, in the shadow of Stirling Castle, had been the choice of retirement in 1840 for Captain Francis Sinclair of the Royal Navy, participant in the battles of Copenhagen, the Nile, and Trafalgar. However, when a grant of land in New Zealand was offered to him his wife Eliza urged him to accept.

With their seven children, they sailed off for the South Pacific, settling first on a farm outside Wellington, then later developing extensive farming holdings in Pigeon and Holmes Bays, where they prospered, but always with the dream of a larger family domain, perhaps an island of their own. The drowning of Captain Sinclair and the two elder sons in a schooner wreck off Christchurch left the family fortunes in the hands of Eliza Sinclair. "We will all go looking for our island, *together*," she announced one day.

She purchased a barkentine, the *Bessie*, and the entire family, possessions, and livestock were stowed aboard, and, skippered by her son-in-law, Captain Gay Robinson, they sailed off in 1863 in search of their earthly paradise, visiting Tahiti, Honolulu, and British Columbia. "I like Hawaii," announced Eliza, and they immediately sailed back to Honolulu, arriving in September of 1863, where King Kamehameha the Fifth sold her the lonely paradise island of Niihau for $10,000 in gold.

And on this picturesque isle the widow Sinclair had her fine home constructed, and the Arcadian life of which she and her husband had long planned became a successful reality. Beyond the Puuwai Village, at Kiekie, just above the thundering surf, still stands the 20-room farm-type dwelling, its walls and timbers the same prefabricated sections made in Boston and shipped around Cape Horn in 1864. The rare, carved antique furniture, imported from England via New Zealand more than a century ago, still graces the grand dining room. And here, happy and content, Eliza Sinclair watched her children and grandchildren develop

under the matriarchy. A visitor in 1875 had described her: "A lady of the old Scotch type, beautiful in her old age, very talented, bright, humorous, with a definite character . . . though upwards of seventy she rides on horseback . . . as light in figure and step as a young girl. . . ."

Rumors of a "feudal island" compelled one of Hawaii's recent governors, William Quinn, to visit the island to see for himself the true conditions in Niihau. He landed with a party of six, including newsmen and photographers. Down from a sandy bluff moved two wiry and tanned men, both dressed in World War One khaki, puttees, and flopping U.S. Cavalry hats. The spokesman was Aylmer, Harvard alumnus, who informed the visitors: "Please, no smoking in the open." He inclined his head toward the tinder-dry combustible foliage of the island. And his second polite request: "And if you talk to the Hawaiians here, kindly be objective." Then he introduced his stylish brother, Lester, whose jovial disposition contrasted with Aylmer's taciturn personality.

At the conclusion of the Governor's tour of the island in jeeps, he realized that there was no truth in the vicious rumors that the island was ruled by tyrannical dictators, or that the islanders were held in virtual captivity, or were "miserably poor." He was convinced that Niihau was a real paradise, and that the Niihauans were happy, contented, and healthy. He met and talked with Ben Kanahele, the hero of Niihau, who with the aid of his wife had overpowered a Japanese fighter pilot who had crashed his plane on the island during the bomb attack on Pearl Harbor, and intended using a machine gun to massacre the natives on Niihau.

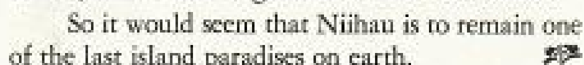
And when he left, the Governor took an appreciative last long look at the island and its people. "A happy life . . . happy people!" he said. The present Governor of Hawaii, John Burns, subscribes to the idea that Niihau and its people should be left alone.

Aylmer was, of course, in agreement, as he's always been. "This is the last paradise for good Hawaiian folk." But, he declared, a nagging problem in Niihau is the small population explosion. "We don't want to be put in the position of telling these fine, happy Hawaiians here, 'We have no work for you and you now have to move elsewhere.' "

During the past several years Niihau has suffered a bit from recurring droughts, and during the war troops stationed on Niihau brought a moth that attacked the *keawe* (Chilian mesquite) blossoms, diminishing their honey production from 15,000 pounds to less than 5,000, and this moth also made it impossible to feed the cattle on meal ground from the *keawe* beans. An increase in turkey farms on mainland America ruined their turkey business, and a blight killed much of Niihau's cacti on which the cattle feed, thus limiting the herd of roan, Durham, and Shorthorn cattle to 1700. And Niihau's red volcanic earth stains the wool of the Merino sheep grazing in the uplands, relegating it to lower prices.

But Aylmer is determined to overcome these problems. "So I'll have to diversify," he said confidently. "I'm going to restore the old Hawaiian mullet ponds, and get the kilns in order to produce good *keawe* charcoal, which is in big demand in Honolulu and in the other islands for barbecue charcoal, and I'm experimenting with castor beans. Also, I'm hoping I can interest the Federal Government in granting me a quota for Egyptian-type cotton, which should grow well here on Niihau."

So it would seem that Niihau is to remain one of the last island paradises on earth.



White-faced cattle roam the slopes of Niihau, tended by native cowboys.

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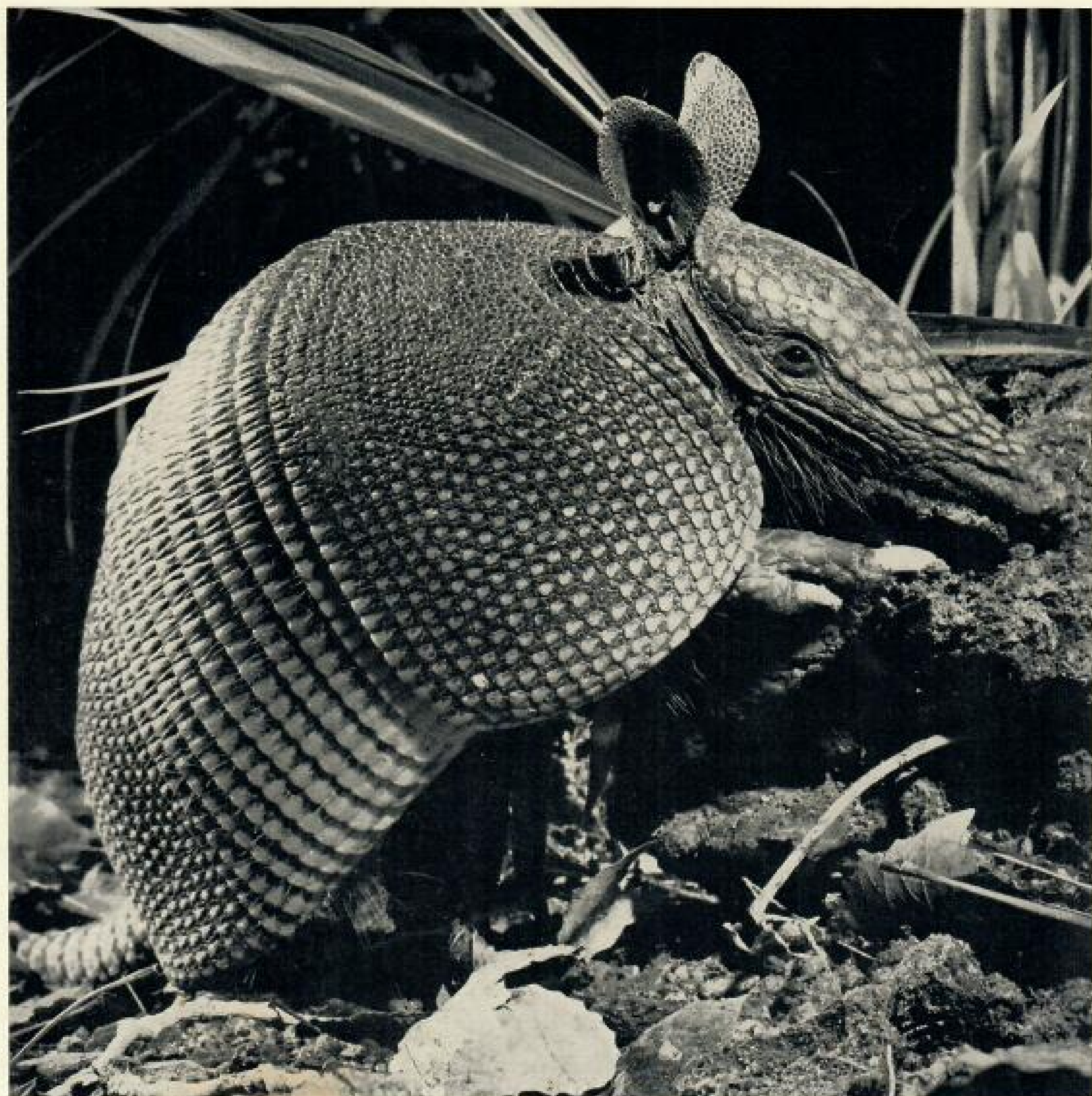

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Alan J. Galloway, Chairman of the Academy's Board of Trustees, is continuing his studies of the San Andreas Fault. . . . Since the Amazon Expedition reported in these pages, Steinhart Aquarium Director **Earl S. Herald** has journeyed to Tokyo to attend the Pacific Science Congress, and to India in search of the blind dolphin of the Ganges. . . . **Wilmon Menard** is a freelance writer from Hawaii. . . . **Pirkle Jones**, photographer, has exhibited in many leading museums, and is represented in a number of permanent collections. His photographs have been published several times in *Pacific Discovery*. . . . Photojournalist **Willis Peterson** has recently retired from newspaper work in favor of freelance nature writing. . . . Australian ornithologist and conservationist **Vincent Serventy** is planning a speaking tour of England and possibly the United States. . . . Planetarium Lecturer **Michael A. Bennett** has been analyzing the meteorites collected on the recent visit to Barringer Meteor Crater. . . . **Lloyd F. Nelson** is an engineer for station KPIX. . . . **Gladys L. Smith** is Staff Instructor in Botany at the University of California Extension Division.

Sometimes one kind of animal looks like another. The armadillo is a mammal, but because its skin is composed of horny plates, many people think it is a reptile. However, it is not only a mammal, but has the distinction that births are invariably of quadruplets of the same sex. During the past fifty years the armadillo, long resident in Central and South America, has been extending its range northward through Texas, and throughout most of southeastern United States. The photograph on the cover is by Willis Peterson, whose picture story on the armadillo begins on page 18.