

30 YEARS OF THE ENDANGERED SPECIES ACT

MAUNA KEA SILVERSWORD

The Mauna Kea silversword, a plant subspecies that grows on the high slopes of Hawaii's Mauna Kea volcano, is a dramatic plant covered in foot long



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dagger-like leaves and silvery hairs that grow to form a rosette two feet in diameter. Today, scarcely four dozen of the plants survive, but management efforts following the plant's endangered listing are helping the species to recover.

HISTORY OF ENDANGERMENT

The decline of the Mauna Kea silversword is primarily the result of grazing mammals that were introduced to the island by humans. Feral sheep and goats, as well as mouflon sheep imported for sport hunting, have reduced the silversword's range to steep cliffs, which constitute about one percent of its original range.

Secondarily, the silversword's reproduction has slowed due to decreased levels of pollinators.

The root of the problem lies in human impacts on naturally rare and specialized species. The silversword illustrates the fate that awaits—or has already overtaken—many island species.



M. Brueggemann/FWS

ROAD TO RECOVERY

The Mauna Kea silversword was federally listed as an endangered species in 1986. Since then, mouflon sheep and feral goats that grazed and trampled the

plants have been removed from the silversword's forest reserve, and the plants have begun to increase in number.

CONSERVATION TODAY

Reduced to a single naturally occurring population outside of the Waipahoehoe Gulch, today's conservation efforts are seeking to establish new populations of the species to help it reclaim some of its former territory.



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Other conservation measures that have been put in place include hand pollination of the plants by biologists and the subsequent collection and propagation of seeds from the flowers. This assisted propagation, coupled with other projects designed to protect the plants and their habitat from exotic species, offer the best hope for the continued survival of the Mauna Kea silversword.

ECOLOGICAL VALUE

The ecological value of the Mauna Kea silversword comes from this plant's relatively unique life cycle. After germination, it can take up to 50 years for the silversword to bloom, which it does only once before dying.

The plant itself is a beautiful, majestic specimen that produces a five-foot tall stalk of one-inch flowers. Dramatic and beautiful, silverswords are popular tourist attractions in Hawaii.

OUTLOOK FOR THE FUTURE

The outlook for the Mauna Kea silversword, once bleak, is now bright.

There are, however, a number of challenges still to overcome. Grazing livestock pose a threat to the species. Exotic insects are also a continuing problem, as ants and wasps not native to the island devastate populations of yellow-faced bees, the natural pollinator of the silverswords.

However, continued efforts targeted at introducing populations into the wild should remain successful and will help ensure the survival of this island plant species.



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