Wilderness preserve harbors accessible desert sanctuary

Blk. Mt. News, 17 June 1982

The Conservation Committee of the CCIA has an exhibit at the library for the month of June. Among the exhibits in the glass case is a fern fossil found by Penny Cox in Willow Springs Wash, north of Cave Creek.

The rock on which this fossil is found is not a type usually associated with fossils, so it aroused my curiosity and interest. Because of a suggestion of a paleontologist friend, and then reading my geology books, I found out about the rock.

During the time when volcanoes were active in central Arizona, undoubtedly volcanic explosions blew out both coarse and fine rock material as well as lava, cinders and ash. Later the coarse and fine material was again consolidated into rock.

The coarse rock is called '*breccia*' and the finer is '*tuff.*' The heat in the lava flow, and often in ash or rock material ejected by the volcanoes, destroyed the plant and animal life, but the finer rock grains could have been cooled and thus preserved instead of destroying the living things. The fern fossil has not been identified further because rolling and tumbling down the wash has obliterated all finer detail.

Some months ago I wrote an article for this column about the Oligo-cene '*Oreodont*' skull found near Cave Creek by Ellis Jones. The skull was in a deposit of tuff. However, this tuff is of different material makeup from the tuff with the fern fossil. So while the fern fossil rock may be Oligocene, it may be of Miocene origin as the volcanic action in the Cave Creek area extended into the Miocene age.

Layers of tuff may be found in areas where volcanic action has been prevalent, associated with ash beds or between layers of basalt. Since

The Conservation Committee members feel that preserving the fossil records of the past is a part of our work as well as helping to conserve and protect the plant and animal life of the Foothills.

If you have persisted reading this far, I hope you are also interested enough to help in the search for more of these fossils in the tuff. I realize that many people have never had enough experience with fossil collecting to recognize them readily. Whole stems or branches of woody plants are usually easily recognized, but non-woody plants may leave only impressions which are sometimes filled within the outlines of the leaf or plant by black carbon from the plant.

Animal fossils may be shells, bones or only an outline of the animal body. So anything in a rock that appears to be different from the rest of the rock just may be a fossil. Oligocene and Miocene fossils are rare in Arizona, so any fossil found in the Cave Creek area could be important.

To those who hike or ride horseback in the hills north of Cave Creek — I appeal to you to watch for fossil deposits or for fossils on rocks as they float in the washes. If you will please report any such findings to me, I'll be responsible for notifying the professional paleontologists so that the fossils will be studied and preserved. Please do not try to remove the fossils from the rock matrix. That is a job for the expert.

Gladys Nisbet
Box 394, Cave Creek
Phone, 488-3288