

3806E1-198

are 33' high in some places. Here the purple shales of the Chinle are exposed. White and Swallowtail butterflies are frequently seen. Sceloporus. Still in erosional gulch and will remain along the water course the entire length of canyon.

3:55 Creek averaging 2 1/2 feet wide and supporting many minnows and polywag. Sceloporus. Chipping Sparrow singing.

4:00 Lizard, Sceloporus, Sceloporus, Chipping Sparrow flew over gulch calling. Sceloporus, Sceloporus, Sceloporus.

4:10 - Stopped for 10 minutes. Here the Moenkopi formation is exposed and almost perfect ripple marks are found on the large blocks that have been exposed. Have been following down gulch proper with the erosional sides 20'-30' high. The water is still disappearing and reappearing in damp bed of gulch. The gulch here is about 50 wide and represents about the average width. It is still cut down through broad canyon floor with on the level is covered with *Tridenta* and *Chrysothamnus*. At several points along the gulch the *Chrysothamnus* is revegetating the once fresh erosion sides. The profile of these sides show that at one time there has been many gullies that have been filled in and now exposed on the ^{sides of the} new gully just being formed. The gnats are annoying and the sun is bearing down so that the shade of the west wall is preferred to the more exposed part of the gulch.

4:25 Have been watching the beautiful exposure of wingate formation on the left side of canyon but now it ends abruptly in a perpendicular profile. The gap that it leaves is noticeable and the wingate is seen to be continuous, however to the south. It is this discontinuous section of the wingate that we are to pass through to enter the flats of the Circle Cliff to the east.

4:28. Leaving gulch and Indian Canyon and trending east up small gulch to divide leading ^{down} into Circle Cliffs.

4:35 Sceloporus.

4:40 Group of Gnateaters feeding in junipers and pinyon. Have been passing over the Chinle formations as as we approach the divide the silicified tree trunk fragments become more numerous in wash bed.

4:42. Divide looking into Circle Cliff country to the east. This wide divide is on Chinle formation with the wingate formation to the north and south. Starting down grade onto flats of the Circle cliff area. Sceloporus and six *Psaltriparus m. plumbeus* feeding in a group among the junipers & pinyon.

4:50 A Coyote left trail 40 ahead of us and crossed gulch to other side where it remained on top of a ledge for a few seconds before it finally left. It watches us at 150' with ears and eyes just peering over rocks on ledge. A deep canyon, 20';