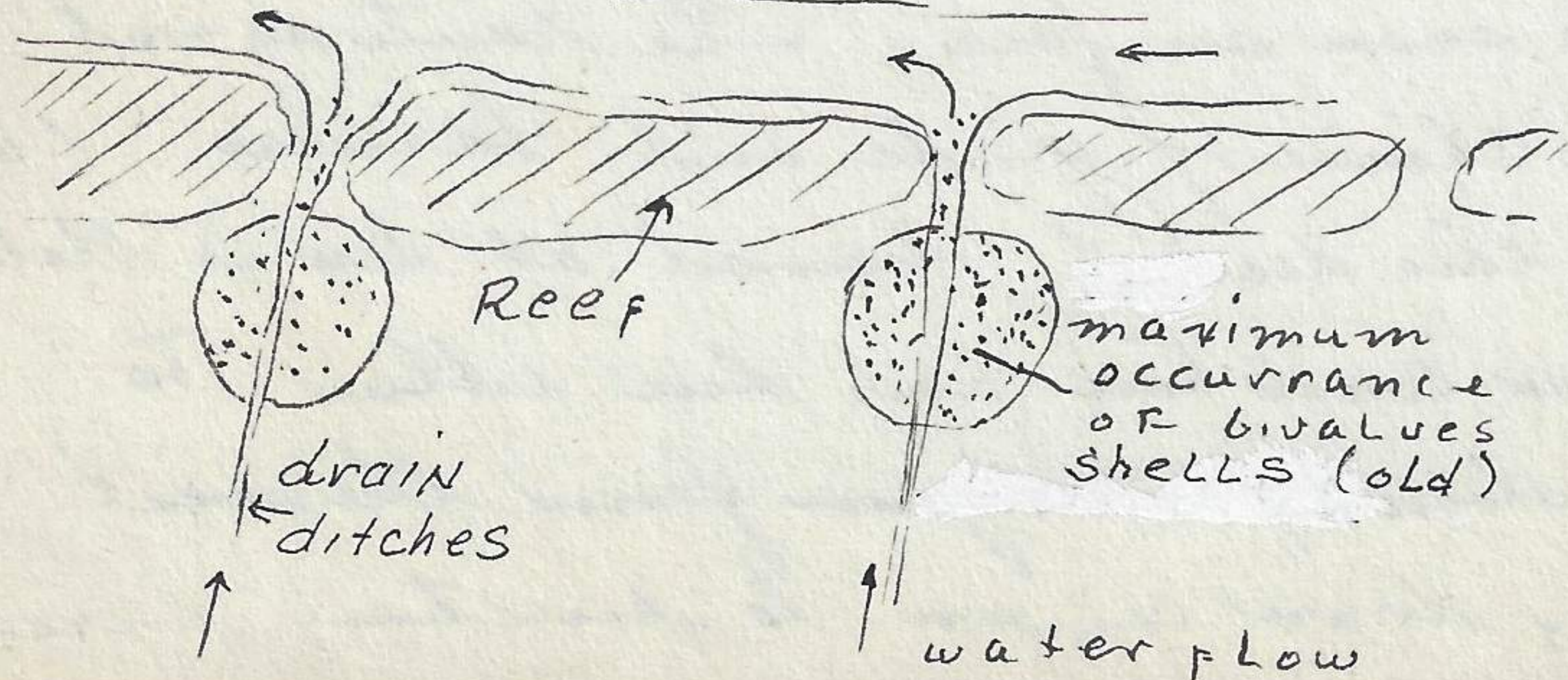


we had left car early this morning. By the time we were out of the canyon the sun was setting, so represented a trip from day break to sun-down. The trip was not recorded specifically so can only make a few generalized conclusions: Bird life very scarce except for two water ouzel and several groups of chickadees. One group of chickadees on top was definitely the ~~Red~~ Red-chickadee. Coyote tracks general as well as rabbit tracks. Few mice trails. No evidence of deer trails at higher elevation.

3-3-30

Left Sunday at noon and drove down to the reef and channel of Cross Bay or Mud Lake. Found the roads in the usual condition for this time of year, just dry enough to run without danger of getting stuck. The ground surface and field were damp in the main, particularly in the old river channel course that at one time wound itself down through these fields. Appears of environment rather dead. Meadowlark common with several flocks of American pipit feeding along fence line and in road. Marsh hawks occasionally seen. Arrived at reef with car which was parked only 3 hundred feet or so from the point where the dredged channel crosses the reef. Things have certainly gone through a decided change with Tamarix and willow having reached a great size on a reef that had never supported such growths or even had these species represented. Except for a 50 foot opening north of reef the entire bay is choked with rushes. The south side is similar except more clear areas are free of rushes. Years ago either side of the reef was represented by large bodies of open water. Water from the south side of reef now drains by ditches to the north and across the reef thence west until it reaches the canal that intercepts the reef. This movement is just reverse to what it was years ago when water on north side of reef flowed south across the reef. Spent several hours in all conditions and in area where years ago I had found the bivalve common but no evidence of them now. They just are not here except their shells. When drain ditches



have been dug through the old ^{natural} channels across the reef one finds the greatest accumulation of bivalves as indicated. Years ago the water flowed in the opposite direction and the currents brought food across at this point with the result