

observed until we reached Camp 5, Ross's Ranch, where they suddenly became quite common, thus putting in an appearance with the first decidedly arid conditions. They remained common the rest of the trip. The spotted Towhee has a varied vocal repertoire. While many of its notes are strongly reminiscent of the Chewink, none are exactly similar and it has many peculiar to itself. The familiar Che-week was not heard but the "ya-ree-ee-e" song was quite recognizable with slight but obvious variation. Six specimens from Camps 5, 6, 8 and 11. Naturally all are referable to *P. m. arcticus*. Towhees are not mentioned by either Horsbrough or Farley. Probably this is another species whose limit is south of Red Deer.

139.* **Zamelodia ludoviciana.** ROSE-BREADED GROSBEEK.— One seen and taken at Camp 1 but not noted again until August 19 and 20 at Camp 11 on the Little Sandhill Creek when singles were observed. Juveniles and females seem to differ from those of the Black-headed Grosbeak only in the absence of traces of lemon yellow on the under parts. The Camp 1 specimen is peculiar in having a large bright red throat patch in addition to the usual breast spot. I have seen indications or suggestion of this in other specimens but in none others examined has it been entire and pronounced. Specimens from Camps 1 and 11. Reported nesting at Red Deer by Horsbrough.

140.* **Zamelodia melanocephala.** BLACK-HEADED GROSBEEK.— Only seen at Camp 11 during August where Young reports it as being not uncommon. Specimens from Camp 11, August 11. Not mentioned by any Red Deer correspondent, probably of more southern distribution.

141.* **Piranga ludoviciana.** WESTERN Tanager.— Only a few seen by Young at Camp 11, on the Little Sandhill Creek the last of August and first of September. Specimens August 21 and 25. Dippie reports skins and eggs from Red Deer and Horsbrough records nests at the same place.

142. **Progne subis.** PURPLE MARTIN.— Horsbrough records occasional birds between Mirror and Buffalo Lake and nests in rotten stumps near Sylvan Lake but says they are not common. Specimen in Fleming collection.

143.* **Petrochelidon lunifrons.** CLIFF SWALLOW.— Very abundant along the whole river, nesting in large colonies under the overhangs of cliff ledges. In places the cliff face is covered solidly over many square yards with nests. Not all of these colonies are occupied, and I presume that they are used but a single season and that the colony seeks new location yearly until the old nests gradually weather away and make room for new ones. It was interesting to note that though many colonies seemed to be built in exposed situations, when rain came, all we observed remained dry while the surrounding cliff face was soaked with wet that would have instantly dissolved the frail clay structures. There is obviously more method in their choice of site than is evident on a casual survey. As it was, we noted many colonies that seemed to have been in situ for