

gray to about the same extent as in the type. The superciliary stripe is very conspicuous and quite continuous. Bill and feet as in the preceding. Wing 5.20, tail 4.15, culmen .80, tarsus 1.25, middle toe .90.

It thus appears that the characters of the species, as originally defined by Professor Baird (Review Am. Birds, p. 29), are not only quite constant but also very pronounced, so that there need be no further reason for denying it the specific rank to which it is clearly entitled.

MARCH 9, 1883.

PRELIMINARY NOTE ON THE CRYSTALLINE SCHISTS OF THE DISTRICT OF COLUMBIA.

By GEORGE P. MERRILL.

As is well known, the region about Washington, D. C., is very poor in crystalline rocks, they being confined entirely to that narrow portion of the District in the immediate vicinity of Rock Creek and the strip of country to the westward included between the creek and the Potomac River.

It is probably due largely to this poverty of material that these rocks have been so little studied, the only reference to the character of the formations that I am able to find dating back nearly fifty years. It is as follows:

“Rock Creek and its immediate vicinity is the line between the primitive formation and the Tertiary. From Rock Creek up the Potomac the borders of the stream are pregnant with primitive rocks *in situ* and in *boulders*, with the exception of a few small pieces of alluvial soil here and there in the valley of the river. This is the case for 20 miles or more, when the country changes to old red sandstone, which continues 20 or 25 miles farther up the river, with occasional ridges of breccia, or pudding-stone. * * * About a mile, however, east of the entrance of Rock Creek into the Potomac, on the southern point of the city, near the glass-house, the final termination of the primitive rocks that line the bed and banks of the Potomac above clearly takes place. In digging wells beyond this point rocks seldom obtrude; the alluvial soil everywhere prevails. Rock Creek separates the primitive from the alluvial soil. In the former gneiss abounds, which is succeeded by amphibolic rock, or grüenstein. The gneiss contains small crystallized tubes of magnetic iron, veins of feldspar, and quartz of opaque white color. * * * The rock employed to form the foundation, or base, of the houses in Washington is a species of gneiss composed of feldspar, quartz, and mica, of a leafy texture owing to the abundance and disposition of the mica. It contains primitive sulphurous iron, and also particles of the same metal which are attracted by the needle.”*

* From “A new and comprehensive Gazetteer of Virginia and the District of Columbia.” By Josiah Martin. Charlottesville, 1835.

The general topography of the country as here given is, I believe, very nearly correct, and need not again be referred to, as it is with the lithological character of the formation only that this paper has to deal. The results here given are based upon microscopic examinations of thin sections prepared from material gathered by myself, and, though they may be subject to alteration on further study, seem at present to be conclusive.

So far as my present experience goes, the prevailing and almost* only indigenous rock of the District is an extremely variable hornblendic, chloritic, or micaceous schist, which sometimes becomes somewhat gneissoid in constitution through the presence of a small amount of a plagioclastic feldspar. The finer varieties of the rock are much used for building purposes, and make a fairly durable material. They are light-gray or slightly bluish in color, compact, and under the microscope are found to consist essentially of quartz and biotite, with but few accessories, among which a silvery-white mica, magnetite, and apatite are most abundant. The coarser varieties of the rock, however, presents a much more complex structure, containing frequently plagioclase (oligoclase?), hornblende, chlorite, apatite, epidote, pyrite, magnetite, garnets, and rutile. The plagioclase occurs only in small, pure crystals, showing to good advantage the characteristic banding in polarized light. The quartz is as usual in irregular grains, and contains but few cavities, the moving bubbles so frequently seen in the quartz of granites being almost entirely wanting. The mica of all these schists is principally biotite, which is frequently more or less altered into a green chlorite. It bears numerous inclosures of apatite and magnetite, and occasionally there is present quite an amount of infiltrated calcite. This ordinarily appears as irregular grains, sometimes showing the characteristic rhombohedral cleavage and laminated structure in polarized light, or merely as minute silvery-white granules imbedded in the mica.

Magnetite is quite abundant in some parts of the rock, as is also pyrite. The garnets, which are of frequent occurrence, are entirely devoid of crystalline outline, and are of light salmon color in thin sections. They are sometimes quite pure, or again contain numerous inclosures of quartz and magnetite.

Apatite is abundant in small colorless prisms, usually showing one or more lines of fracture parallel to the base. The hornblende, when present, is usually in very imperfect crystals of a faint bluish or greenish color; it contains very many cavities and inclosures. Occasionally it is met with in the form of small, flat rhombic prisms, which are often broken transversely. Rutile is a common accessory in the hornblendic varieties of these schists, occurring as small four or eight sided prisms of a bright reddish, brown color. They are usually too small to allow

* A very small outcrop of impure soapstone occurs just north of the Woodley Road and west of Rock Creek.

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an accurate determination of their optical properties, but nevertheless are easily recognizable. The smaller crystals are often grouped together in clusters of half a dozen or more, but the larger are always single and scattering. The common form is that of a single prism not over 1^{mm} long and perhaps one-half as broad. Geniculate forms, so characteristic of this mineral, are met with but rarely.

On the bank of Rock Creek, near Oak Hill Cemetery, and in numerous other localities in the near vicinity, a tough, though not hard, dark-green rock is found interstratified with the prevailing schist, which has been supposed by some to be a trap-rock, or "greenstone," and presumably it is this rock that is referred to in the quotation as grüinstein.*

But however much the rock may resemble a trap in its external appearance, it requires but a glance with the microscope to dispel the illusion. The rock consists of clear, glassy quartz, very rarely a small crystal of a triclinic feldspar, and an abundance of hornblende and mica, the former very extensively altered into chlorite; and it is in this respect only, so far as I have observed, that the rock differs from the prevailing schist in the neighborhood. So far as yet observed no true eruptive rock is to be found within the District limits.

UNITED STATES NATIONAL MUSEUM, *March 16, 1883.*

**CATALOGUE OF A COLLECTION OF ETHNOLOGICAL SPECIMENS
OBTAINED FROM THE UGASHAGMUT TRIBE, UGASHAK RIVER,
BRISTOL BAY, ALASKA.**

By WILLIAM J. FISHER,

*United States Signal Service Observer at Kadiak.**

UGASHAGMINT TRIBE, UGASHAK RIVER, BRISTOL BAY, ALASKA.

1. Na-dshiak. Head-dress worn by women at dances and festivals.
2. A-gach-wot. Ear-rings worn by women.

*I have found specimens of this rock in the Museum collection marked "Trap, or Greenstone," though upon whose authority I do not know.

*The form of the invoice is recommended to all collectors as containing much information of service in labeling and cataloguing a collection. It is desirable to add to the data furnished in this invoice the exact date when the various objects are collected, as this item will be of special value in the remote future in shedding light on the history and progress of the various tribes represented in the Ethnological collections of the National Museum.

Many of the articles in Mr. Fisher's collection are restorations of archaic and obsolete forms, and in reproducing them materials have been employed that are not strictly appropriate, as they have been introduced since the use of the articles has been discontinued. This is particularly the case with some of the bead-work, in making which beads of modern origin have been used.—EDITOR.