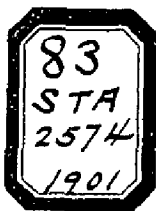


2574



U. S. COAST AND GEODETIC SURVEY.

O. H. Tittmann, Superintendent.

State: *Alaska*

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DESCRIPTIVE REPORT.

Topographic Sheet No. *2574*

LOCALITY:

*Prince William Sound,
from Knowles Head to
Pt. Freemantle*

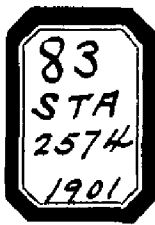
1901.

CHIEF OF PARTY:

H. P. Ritter

2574

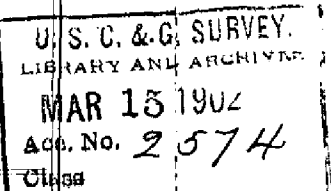
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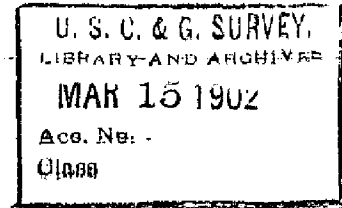
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H. P. Ritter

MAR 14 1902. 05220

Treasury Department,
Office of the Coast and Geodetic Survey,

Washington, D. C., March 14, 1902.



*Descriptive Report
to accompany
Topographic Sheet no. 2574.*

Homers P. Ritter
Asst. U.S. C. & G. Survey

Title:

Treasury Department.
U.S. Coast and Geodetic Survey.
O. H. Tittmann, Superintendent.
- Topography -
Eastern Side of Prince William Sound
- Alaska. -

Shore line topography from Knowles Head
to Valdez Arm, including Goose Island -
Snug Corner Cove - Entrance to Fidalgo Arm -
Boulder Bay - Landlocked Bay -
Eastern shore Bligh Island - Tatitlack
Narrowe - Entrance to Valdez Arm and
Galena Bay.

by Party of Homer O. Ritter, assistant
surveyed in conjunction with other work
during May - June and July 1901.

Scale $\frac{1}{40000}$.

Statute miles



Observers:

Homer O. Ritter, assistant.
B. A. Baird, aid.

Plotted and inked by H. O. R. asit.
Elev. of Mt. Peaks measured with theod. by H. Bowie asit.
Elevations given in Ft. above Mean High Water.

Local Names appearing on sheet.

Name	Authority.
Knowles Head	Local usage - Mariners - Previous Existing Maps
Goose Island	do do do
Porcupine Pt.	do do do
Inug Corner Cove	do do do
Fidalgo Arm	do do do
Landlocked Bay	do do do
Copper Mountain	do do do
Copper Mt. Pt.	do do do
Boulder Bay	do ~ ~
Jatitlack	do Mariners - Previous Existing Maps
" Narrows	do do Ritter
Cloudman Bay	do ~ do
Bligh Island	do Mariners - Previous Existing Maps
Virgin Bay	do do
Ellamar P.O.	do do. - P.O. Department
Rocky Pt.	do do. Previous Existing Maps.
Galena Bay	do do do
Valdez Arm	do do Ritter
Pt. Fremantle	do do Previous Existing Maps.

Knowles Head:

Knowles Head is the southwestern extremity of the mountainous range separating Fidalgo Arm on the north from Cordova and Gravina Bays on the south.

The seaward face of the Head is steep and bold, rising from the waters edge to an elevation of 1600 feet.

It is densely wooded from the waters edge to the top.

On the face of the bluff a conspicuous land slide starting from near the top and reaching to the bottom has stripped off the timber, exposing the rock which is of a grayish yellow color. This slide is very prominent and is often a guide to the mariner in recognizing the Head in thick weather.

Knowles Head is one of the principal points looked for by the mariner on entering Prince William Sound.

The shore in the vicinity of the Head is very rocky close to shore.

Going northward from Knowles Head the general direction of the shore is in a northwesterly direction for about 5 miles, when it makes a sharp turn (Porcupine Pt.) to the eastward; after keeping this direction for about a mile it changes its direction to the southeastward forming the southwestern shore of the triangular shaped bay known as "Inug Corner Cove".

Goose Island:

Goose Island is a small island $1\frac{1}{4}$ miles long and $\frac{1}{2}$ mile wide.

It rises out of the water forming a rounded knoll at each end 320 ft high with a slight depression between them. Its northern end is about $1\frac{1}{2}$ miles southwest of Porcupine Pt.

The general direction of the island is parallel to the shore of the adjacent mainland and a little over a mile distant. The island is heavily wooded with the usual spruce timber. The shore is rocky with

the exception of a sand spit and shingle beach near the northeastern end; here are several buildings and outhouses which are occupied by a man and his family who are engaged in raising foxes, the island having been stocked by him with blue foxes.

The eastern half of the waterway between the island and the mainland is full of rocks and is generally foul while deep water is found on the island side.

Inug Corner Cove:

Between Porcupine Pt. and a sharp point of land 3 miles to the eastward is a triangular shaped bay extending inland for a distance of 3 miles.

This bay is known as "Inug Corner Cove", which name was given it by Captain Cook in 1778, when he discovered and named Prince William Sound.

On the eastern side of the bay

there are shallows and rocks, while deeper water is found in the middle and on the western side.

Two miles from Porcupine Pt. was the camping ground of the party during April, May & June 1901.

In front of the camp a good anchorage was found and was used by the Str. Taken during the survey in this vicinity.

The bay with the exception at Porcupine Pt. is surrounded by a strip of low land, $\frac{1}{4}$ to $\frac{1}{2}$ a mile wide, covered with tundra meadows, bogs and a few spruce and hemlock.

The low land generally extends to the foot of the steep mountain slopes which are mostly covered with spruce.

At the head of the bay a low valley with steep sides extends all the way through to the Sound just east of Knowles Head. Midway in the valley a low divide (about 100 ft. in elevation) separates the drainage.

Another low depression extends from the Camp anchorage towards the westward into the narrow waterway just east of Goose Island.

Porcupine Pt. is a rounded wooded bluff 900 ft. high with a rocky shore, and having submerged rocks some distance beyond the extreme northern end of the Point.

During our stay at Inug Corner Cove plenty of Codfish could be caught in the bay at all times.

Ducks, geese and grouse were plentiful, also a few bear were seen.

Fidalgo Arm:

Going northward from Porcupine Pt. the nearest point on the mainland is Copper Mountain Pt. distant about $5\frac{1}{2}$ land or 5 nautical miles.

A line drawn between Porcupine and Copper Mt. Pts. may be considered the beginning of Fidalgo Arm.

This Arm is said to extend to the eastward for nearly 30 miles.

The Arm was named by Vancouver in 1794 after Lieutenant Fidalgo a Spanish explorer who visited Prince William Sound in 1790.

Landlocked Bay:

Just east of Copper Mt. Pt. and emptying into Fidalgo Arm is a bay which extends inland for about 5 miles.

For the first 3 miles it extends in a northerly direction and is about two miles wide; then it narrows up to $\frac{1}{4}$ of a mile, makes a turn to the eastward and keeps that direction to the end, varying in width from $\frac{1}{4}$ to $\frac{1}{2}$ a mile.

The southern slope of Copper Mountain which is very bold and precipitous, forms the northern shore of the bay, and one of the spurs of the mountain descending to the southward and ending in Copper Mt. Pt., bounds the western side of the bay.

The eastern shore of the bay is also mountainous but broken up with

islands, rocks and shallows, the land rising from comparatively low ground near Fidalgo Arm to steep mountain sides at the upper end of the bay.

The extreme eastern end of the bay ends in the usual mudflat and a narrow valley extending into the mountain out of which comes a large and torrential creek of ice cold water.

The usual spruce trees and alder bushes are found along the shore and part way up the mountain slopes, but near the upper end of the bay

the timber does not go up so high and the upper elevations of the mountain slopes are mostly bare, often perpendicular, worn smooth and even polished.

Near the head of the bay considerable development work is being done in prospecting for ores containing gold silver and copper. Several buildings

have been erected; also a small wharf to which a number of good sized steamers have come to take on board ore for shipment to Seattle

or Tacoma smelters to test it on a large scale.

A prospecting tunnel was under way when the party on Str. Tahu was making the survey in 1901.

Mainland from Copper Mt. Pt. to Rocky Pt.

Going northward from Copper Mt. Pt. The general trend of the mainland is a little west of north (true) as far as Rocky Pt. where the shore takes a northeasterly direction and forms the southeastern shore of Valdez arm.

The distance between Copper Mt. Pt. and Rocky Pt. is about 10 miles.

In this stretch the mainland is indented by one large (Boulder Bay) and a number of smaller bays.

To the westward of the mainland and separated from it by a narrow waterway are a number of islands, the largest of which is called Bligh Island.

Boulder Bay:

Two miles north of Copper Mt. Pt. is a pear shaped bay which is locally known as Boulder Bay, from the large number of boulders (some of enormous size) which constitute the beach between high and low water and extend in numerous places out to deep water.

The bay is about $1\frac{1}{2}$ miles wide at its mouth and extends in a northerly direction inland for a little over two miles.

The land contiguous to both sides of the bay is similiar to that of Landlocked Bay, i.e. comparatively low at the southern end; rising rapidly as you proceed northward, with steep, rugged and high cliffs coming down to the waters edge at the northern end.

The two mountain sides bordering the east and west sides of the bay, continue beyond the bay northward and form a valley which extends all the way to Galena Bay. Through this valley there is said to be an Indian trail

between the two bays.

There are several small islands and numerous rocks (especially on the eastern side) in the bay.

The timber and its distribution is similar to that in Landlocked Bay.

The western slope of Copper Mountain comes down to the eastern shore of the bay.

Numerous waterfalls come down on this side of Copper Mountain, and in the spring and early summer the roar of the snow avalanches is almost continuous and can be heard 10 to 20 miles away.

A number of mineral claims have been staked out in this vicinity.

From the somewhat low and tundra covered point, which separates the southwestern end of Boulder Bay from the adjacent Tatitlack Narrows, to Virgin Bay, about $3\frac{1}{2}$ miles distant, the shore is low, having a shingle beach thickly strewn with boulders and rocks, a number of which stick out of the

water some distance from shore.

Halfway between the point and Virgin Bay is a small rock surrounded island which is connected with the mainland at low water.

Inland from the shore the ground rises gradually for a half a mile or so and then ascends abruptly up the mountain side.

Tundra meadows and a few scattered spruce cover this flat or bench, while the mountain side is heavily wooded.

On the southern end of the flat and close to shore is the Indian village of Tatitlack. This village consists of a score of modern looking frame dwellings and a church of the Greek denomination.

Virgin Bay:

About midway between Copper Mt. Pt. and Rocky Pt. the mainland is indented by a cove or small bay known as Virgin Bay.

The bay is less than a mile long and

half a mile wide with a rocky ledge in front, leaving a narrow entrance to the bay.

The northern end of the bay is sometimes called Gladhaugh Bay, after the locator of a large copper bearing vein of ore which here crops out at the waters edge.

The mineral worth of the vein is now being explored by a company which is sinking shafts and has put up quite a plant of machinery necessary for the work; a wharf, store, assay office and other buildings have been put up.

There is a Postoffice here known as Ellamar P.O.

A hotel, several stores and about 20 residence dwellings were erected here in 1901.

From Virgin Bay to Rocky Pt. the shore is bold and rocky with numerous little islands and rocks along shore and some distance out.

A half a dozen coves indent the shore.

The land contiguous to this stretch is high and densely wooded; the northern 3 miles of which is a high neck of land $\frac{3}{4}$ to a mile in width bounding the western side of Galena Bay near its entrance.

Galena Bay:

Galena Bay somewhat in shape like a stretched out letter S. has an average width of a little over a mile and extends inland in an easterly direction for about 7 miles.

The shore in general is bold and rocky and in many places perpendicular bluffs come down to the waters edge.

A number of coves indent the shore. a number of small islands are found close to the northern shore.

Numerous mountain streams and waterfalls come down the mountain side and generally form a small shingle and boulder strewn beach where

They enter the bay.

The shore and part way up the mountain slopes is densely wooded with spruce, hemlock, alder and underbrush.

A number of open places are met with; these places are generally covered with moss, peat and numerous pools and ponds with only a seepage drainage.

About $3\frac{1}{2}$ miles from its mouth, the bay narrows to $\frac{1}{3}$ of a mile in width and then abruptly widens out again.

One mile to the eastward from here, coming out of the northern side of the bay, is a large creek with a delta of some extent; here is an indian settlement consisting of half a dozen shacks.

Two miles farther to the eastward from here a narrow waterway only a few hundred yards wide and a half a mile long leads into the extreme eastern end of the bay.

This part of the bay is about $\frac{3}{4}$ of

a mile wide and a half a mile long.

It is shallow and nearly surrounded by high mountains.

A large creek enters at the north eastern end.

Entrance to Valdez Arm:

The part of Valdez Arm shown on the sheet extends from the entrance to about 9 miles inland.

Here the general direction of the Arm is northeasterly (true) and from four to six miles wide.

In this stretch the northern shore is bold and rocky, perpendicular cliffs coming down to the water's edge. The entire distance with but two exceptions, where there are shingle beaches, of limited extent, covered with boulders along the shore and out into the water some distance forming submerged reefs.

The land close to shore rises abruptly. The mountain tops close to shore, near Pt. Freemantle attain heights of from 2000 to 2500 feet and become higher as

you ascend the Arm or before you get very far inland, attaining elevations of from 4 to 6 thousand feet.

The shore and mountain slopes on this side of the Arm are wooded with spruce, hemlock, alder and dense underbrush.

On the other side of the Arm in this stretch the shore is broken up with bays, coves, islands, rocks and inshore reefs.

The shore here is indented by Galena Bay and Tatitlack Narrows; the latter separating Bligh and its contiguous islands from the mainland.

The land close to shore is comparatively low, being the broken up and partly submerged ends of mountain spurs coming down from the higher land farther inland.

Spruce, hemlock, alder, dense underbrush and moss and grass covered open places or tundra constituting the flora on this side of the Arm.

Bligh Island:

Bligh Island is an island of some extent in the northeastern part of Prince William Sound.

It lies close to the mainland from which it is separated by a narrow waterway known as Tatitlack Narrows and is about half way between Knowles Head and Pt. Fremantle.

The island is about 5 miles long and 4 miles wide and is surrounded on the northeast, north and northwest by numerous small islands varying in extent from a few square yards to $\frac{3}{4}$ of a square mile.

To the westward of the middle of the island and from $1\frac{1}{2}$ to 2 miles distant from the shore of the main body of the island there is known to be a submerged reef.

The main body of the island is mountainous; a number of the peaks attaining elevations of from 1400 to 1500 feet above the sea.

Two bays and a number of coves indent the island.

The larger one of the two bays is on the northwestern end of the island, has a width of $\frac{1}{2}$ a mile and extends inland nearly two miles.

The other, known as Cloudman Bay is of less extent and is on the eastern side.

Here are the dwellings and other buildings belonging to a Mr. Preston Cloudman, who is engaged in raising blue foxes.

The larger one of the islands contiguous to Bligh Island on the north is also used as a fox ranch.

The southern and $\frac{2}{3}$ of the western side of Bligh Island is bold and precipitous with a rocky shore. The rest of the island shore is surrounded by small islands, shallows and countless reefs + rocks.

A large part of the island is wooded with the usual timber found on the mainland, the remainder of the island has the usual covering of peat, moss, bushes, grass, flowers, bogs + ponds.

Homar P. Butler

Asst. U.S. Geol. Survey