Gold in New Hampshire

Yes! New Hampshire has gold! However, to date, only small quantities have been found in some of the state’s bedrock (the solid rock under the soil) and in the gravels at the bottom of some streams (as placer deposits). When gold is found in the bedrock, it usually occurs in veins – long, narrow mineral rich “streaks.” It is removed by breaking up the rock and removing the gold.

These hard rock mining techniques have been done here in the past. Gold was discovered in Lyman, NH, in 1864, sparking a minor rush. Several small mines soon opened in the Bath, N.H. area. These small mines supported two milling operations. About $50,000 worth of gold (at period value) was shipped to the Philadelphia National Mint before economic circumstances closed operations in 1878. A much smaller amount of gold was also shipped to the mint from the Diamond Ledge Mine in Ossipee. None of these mines are currently operating.

OCCURRENCE
Gold is found in certain types of rocks, formed by geologic processes. The weathering of New Hampshire’s gold bearing bedrock broke the rock apart naturally. However, gold does not weather, and this allowed the more resistant gold pieces to be washed away by running water. Gold is approximately 19 times heavier than the same volume of water and gets left on the stream bottom with other heavy rock and mineral pieces.

Gold found in stream gravel is known as a placer deposit. Panning and dredging are methods of separating the heavy gold flakes and nuggets from the stream gravels. Some gold panning and dredging has been done over the last 300 years of New Hampshire’s history, with varying degrees of success.
IMPORTANT NOTE: The water in a New Hampshire stream, brook, or river is considered to be “waters of the state,” however, the stream or river bed is privately owned by the individual(s) owning the land along the banks.

PANNING FOR GOLD IN NEW HAMPSHIRE’S STREAMS
Obtaining permission from landowners is more than simple courtesy; you are extracting minerals that are part of their property. Those gold panning may not use a shovel to dig into the stream bottom or stream banks. Scooping gravel up with the gold pan is allowed. Mineral seekers in the White Mountain National Forest (WMNF) need to check out WMNF regulations at: http://www.fs.fed.us/r9/forests/white_mountain/recreation/minerals/. New Hampshire state lands, such as state parks, geologic and historic sites, etc., have rules regarding mineral collecting. See: Administrative Rule Res 7301.19 – Res 7301.21 at http://www.gencourt.state.nh.us/rules/state_agencies/res7300.html

RECREATIONAL MINERAL DREDGING
Dredging and the use of sluice boxes involves disturbing the stream sediments but on a larger scale than panning. Processing stream gravels in search of placer gold, releases fine sediments back into the stream. (Note the “muddy water” in the photo.) Sediment-laden streams can be an environmental issue. Therefore, certain regulations apply to this activity in New Hampshire. Dredging and similar operations are regulated by the state under statutes RSA 482-A and RSA 485-A:17 because of the potential for environmental damage.

PERMIT REQUIRED
Gold seekers who anticipate dredging, or similar work in New Hampshire, are required to obtain a permit. The application for a permit to operate a minimum impact small motor dredge for recreational mining of gold and other minerals under RSA 482-A and RSA 485-A:17 is available at: http://des.nh.gov/organization/commissioner/pip/forms/wetlands/documents/recr_mineral_dredging_app.pdf.

One MUST obtain a permit and follow these regulations in dredging for gold in New Hampshire. Recreational panners also need to check the regulations and everyone needs the permission of landowners to access stream locations for panning or dredging. Detailed information regarding permitting may be obtained by contacting the NH Department of Environmental Services Wetlands Bureau, PO Box 95, Concord, NH 03302-0095; (603) 271-2147. See http://des.nh.gov/organization/divisions/water/wetlands/permit-rec-mineral-dredging.htm

WHERE TO LOOK FOR GOLD IN NH
Gold has been identified in placer deposits, quartz veins and in metamorphosed conglomerate, especially the Clough Formation in the western side of the state. You can obtain a copy of the Bedrock Geology Map of New Hampshire, 1997, (Geo-NHX-250000-BMAP), showing the location of these rock formations, from NH Department of Environmental Services Public Information Center, PO Box 95, Concord, NH 03302-0095; (603) 271-8876; pip@des.nh.gov.
The most well-known New Hampshire gold deposits were described by C.H. Hitchcock in 1878. He identified the Ammonoosuc Gold District centered on Lyman, Monroe and Bath, including southwestern Littleton, northwestern Landaff and western Lisbon. See historic Hitchcock maps at http://docs.unh.edu/Hitchcock/pages/index.htm.

Smaller amounts came from the Diamond Ledge in Ossipee. Gold in the Ammonoosuc District is found in veins (mineral filled cracks in the bedrock) with sulfide minerals such as pyrite, and as “free” gold in quartz veins. Streams draining into the Connecticut River, especially from the confluence of the Ammonoosuc River at Woodsville north to the Connecticut Lakes, are all favorable for finding gold in placer deposits. The Baker River, draining into the Merrimack River, is also reportedly favorable for placer gold.

New Hampshire gold pieces in placer deposits range in size from very fine “specks” to pearl size “nuggets.” In truth, hard work can probably produce traces of gold from many streams in the state. Gold has been reported from many streams in northern and western New Hampshire. The following is a partial list.

<table>
<thead>
<tr>
<th>Town</th>
<th>Stream</th>
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<tbody>
<tr>
<td>Benton</td>
<td>Tunnel Brook</td>
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<tr>
<td>Lincoln</td>
<td>Notch Brook</td>
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<tr>
<td>Lisbon</td>
<td>Salmon Hole Brook (reported to be the site of an 1866 con scheme when a sluice box was salted with gold to attract investors)</td>
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<tr>
<td></td>
<td>Wild Ammonoosuc River</td>
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<tr>
<td></td>
<td>Ammonoosuc River below Bath, NH</td>
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<tr>
<td>Northern Coos County</td>
<td>Indian Stream (gold has been reported in glacial deposits in the area)</td>
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<tr>
<td></td>
<td>Perry Stream</td>
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<td></td>
<td>Swift Diamond River</td>
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**RESOURCE POTENTIAL**
The Ammonoosuc Mining District is part of a belt that continues out of Vermont, up the Connecticut River, north into Quebec. This belt comprises of bedrock, which holds the highest potential in the state for important discoveries of gold reserves, as well as other metals. This belt is defined by metamorphic rocks, many of which were originally deposited as “volcanics,” which could have been, in part, endowed with gold. The most intensive placer-recovery gold activity in recent years has occurred in surficial deposits (soils and stream sediments) within this belt.

Other areas, including the rocks of the White Mountains and similar rocks to the south such as those within the Pawtuckaway Mountains, are also favorable for gold prospecting. The potential also exists for the occurrence of gold along faults, especially those rich in silica minerals.

As with any hobby, talking and working with other enthusiasts will give you a great deal of information on locations and techniques. Additionally, New Hampshire has a number of active mineral clubs. An online search can give you their contact information. Good luck!

If you have questions, contact the New Hampshire Geological Survey, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; (603) 271-1976; FAX (603) 271-3305; geology@des.nh.gov; http://des.nh.gov/organization/commissioner/gsu/index.htm.
SUGGESTIONS FOR ADDITIONAL READING


Jackson, C.T. 1844. *Final report on the geology and mineralogy of the state of New Hampshire with contributions toward the improvement of agriculture and metallurgy*.


