



Omulyakhskaya and Khromskaya Russia

Along the northern Siberian coast, near Omulyakhskaya and Khromskaya Bays, the landscape is dotted with lakes. Known as thermokarst lakes, these pools are made from the thawing of frozen soil, or permafrost, and the accumulation of that melt water in low spots in the terrain.

Although far too cold for a swim, the water is generally warm compared to the surrounding soil, so it can slowly thaw more permafrost and make the lake deepen and expand over time. Occasionally the basins merge or even drain into streams and the bay. Dark brown spots in the image are probably locations of former thermokarst lakes.

Because thawing permafrost and thermokarst lakes release carbon and methane—both greenhouse gases—scientists monitor these landscapes closely because of their implications for future climate.