ADVENTURES:
THAILAND DAY DIVING
KOMODO DANCER
THE WHITE SEA
PORT PHILLIP
HALMAHERA
CUBA

DIVING MEDICINE: OXYGEN AND DIVING
DIGITAL PHOTOGRAPHY: MANAGING MANUAL FOCUS

CELEBRATING 41 YEARS
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Beneath the

WE GATHERED IN THE FRIGID PREDAWN. OUR GEAR AND LUGGAGE PILED IN FRONT OF THE SNOWMOBILES AND OUR NOSES FREEZING IN THE 22°F (−5°C) TEMPERATURES. IT WAS TIME TO LEAVE OUR RUSSIAN HOSTS AFTERA WEEK OF DIVING THE FROZEN WHITE SEA BUT WE WERE TEMPTED TO LINGER A LITTLE LONGER. DURING THOSE LAST FEW MOMENTS, STANDING UNDER A CURTAIN OF STARS ON A DEEP, DARK NORTHERN NIGHT IN RUSSIA, WE REFLECTED ON THE EVENTS OF THE PAST WEEK.
We'd come to this remote spot filled with excitement and anxiety over the prospect of exploring the icy waters of the White Sea. Nestled alongside the Kola Peninsula and straddling the Arctic Circle, this inland sea—technically part of the Barents Sea—is the only one which completely freezes in winter. Our ice-diving operations base was the Arctic Circle Dive Lodge near the seaside village of Nilma and just north of the Arctic Circle.

Diving the White Sea in winter requires preparation, equipment, fortitude and, most important, adequate training in ice diving techniques. With surface temperatures routinely dipping as low as -22°F (-30°C), and with almost constant snowfall, divers must be prepared for extreme conditions. Almost three feet of sea ice is covered with six inches or more of snow. Once below the ice, water temperatures hover near 28°F (-2°C). Though visibility is generally good, the water can be extremely dark, so many of these dives can almost be considered night dives due to the lack of ambient light penetrating the ice ceiling. Fully functioning cold water gear and good training are essential.

White Sea

1. The maina, or ice hole, is the only exit from beneath the ice
2. Divers find clear dark water beneath the ice
3. Divers explore the ice formations of Bidlita Bay

Michael Salvarezza & Christopher P. Weaver
divetheblue.net
referred to locally as a maina. Once suited up, divers shuffle to the entrance
and begin the icy plunge into the magical
world below.

Our first dives were at Anemone Rock in
45 FSW (14m), a huge rocky outcrop on
the bottom around 20ft (6m) high which
rises up from the slope of Bolshoy
Krestovy (Big Cross) Island. Some say it’s
as big as a three-story building and
shaped like a dragon’s tooth. The seabed
is very silty, so care must be taken so as
to not stir up the bottom.

Anemone Rock is named for the profusion
of life covering this massive structure.
Frilled anemones, colourful tunicates,
beguiling nudibranchs and a wide variety
of other small invertebrate life abound on
this oasis in an otherwise nondescript
sloping bottom. Wedged inside cracks in
the rock are wolf fish, expertly positioned
to avoid the range of our cameras!
Looking more closely alongside the rock,
we did find small bottom dwelling fish
such as the Arctic sculpin. Close to four
inches (10cm) in length, these wary
denizens seemed unfazed by our attempts
to photograph them… perhaps they were
too cold to move.

Subsequent dives were alongside some of
the islands. Small Cross is a rocky
outcropping with a tumbling slope which
we eagerly explored, photographing the
kelp (laminaria) covered rocks and the
dramatic ice ceiling above. Diving
beneath the ice affords divers an out-of
this-world experience as the surface ice
takes on a greenish tint from the
surrounding water.

Towards the end of our week the
temperatures plummeted from a rather
comfortable 20°F (-7°C) to a bone-chilling
-22°F (-30°C)! Suddenly our dives became
more arduous as we struggled to stay
warm and keep our equipment
functioning. Residual water froze fast in
the air so our equipment became encased
in ice in mere minutes. The entrance to
the dive site became a slushy mix of ice
and snow, and any water exposed
through the hole also quickly started to
freeze over. As we descended through a
two-foot (.6m), tunnel of slush and ice, it
took all self-control not to breathe off the
regulators until fully submerged lest we
risk a free-flow. And once under the ice
we preferred not to think too hard about
whether the surface tenders were keeping
the hole clear of solid ice!

At Biofilter Bay, named for its abundance
of shellfish and filter feeders covering its
rocky bottom, we descended into a
cathedral of ice. The Bay isn’t
extraordinary in summer, but it completely
changes in winter. The most interesting
thing about ice diving here is the ice
itself. Because of the strong tidal currents,
the high and low water levels differ by up
to six feet (2m), and the tidal cycle lasts
about 12 hours. As the ice rises and falls
within the water column, it freezes to the
rock faces and other ice formations. It
then breaks off and tumbles around bumping into each other, then freezes
again to these surfaces. This constant
tumbling and moving allows the ice to
carve amazing underwater ice sculptures.
As we drifted along the sloping shoreline
just under the ice ceiling, we could
witness and explore these chaotic jumbles
of fragmented ice crushed together in magnificent formations. Huge slabs of ice plus bulbous ice ‘boulders’ floated in the frozen sea, and as we swam amongst and around these frozen monuments to nature’s beauty and power, we became even more aware of how special this place is. With only our line to lead us back to the opening and the spine-tingling cold world above, we were encapsulated in the silence of the frozen spectacle below. We floated among these grand ice displays, at one with its frozen beauty before reluctantly returning to the entry hole and the surface.

Beneath the White Sea, in the mysterious and seldom visited Russian Arctic, we’d experienced moments of true physical hardship along with fabulous and magnificent beauty. And now, as we stood in the bitter cold waiting for our transport back to Finland, we swapped stories and reflected on our experiences. Suddenly a shout rang out in the night: “Auroral!”

We all scrambled back to the edge of the frozen sea, our feet in newly frozen snow and looked upward. A shimmering, undulating miracle of nature was displayed across the night sky... the Aurora Borealis (Northern Lights)! The script couldn’t have been written more perfectly... it was as if the Arctic itself was bidding farewell. With brilliant greens and yellows, the Aurora danced for us... a show of indescribable beauty that’s beguiled people for millennia in the northern latitudes. And one that will continue for millennia to come.

WHITE SEA INFO
Dive Time: Usually 20-45 minutes, diver dependant.
Breathing Gas: Air, note Nitrox is not available. Depth: Rope dependant; usually not more than about 20m. Water Visibility: 15-50m. Ice Thickness: Up to 1.5m.
Water temperature: -1°C to -2°C.
Air temperature: +6°C to -30°C.
Salinity: 27.5-28 parts per thousand, lower than the mean salinity of the Arctic Ocean.
Facilities: Heated huts are available for divers to don/doff gear, and to relax between dives. Snowmobiles are used to transport divers and equipment to and from the dive sites. Diver tenders help divers exit the dive hole, ladders are not used.
White Sea Expeditions: ecophotoexplorers.com/whitesea.asp

1 Anemone beneath the ice
2 Starfish can also be found
3 The region is home to picturesque cottages
4 Divers are secured to the surface using a system of ropes
5 An Arctic sculpin eyes us warily
6 Siberian Huskies are well suited for the Arctic environment
7 The dive team on the way to the dive site across the frozen surface of the White Sea
8 The Arctic environment was quite rigorous for the camera systems
9 Divers and equipment must be prepared for extreme conditions
10 The authors entering the water