

THE CROATIAN ADRIATIC COAST

CROATIAN COAST - 1,778 km

CROATIAN ISLANDS - 1,185 (66 inhabited)

GREATEST DEPTH OF THE SEA - 1233 meters

AVERAGE SALINITY - 38‰

SEA TEMPERATURE - from 11° (winter) to 25° Celsius (summer)

The Adriatic Sea is a bay of the Mediterranean Sea, separated by the Apennine Peninsula. The Adriatic Sea got its name from an ancient port of the same name. It penetrates farthest into the European continent, giving it a great economic importance.

The Croatian coast can be divided into Istria, Croatian Primorje and Kvarner (north of the island of Pag) and Dalmatia, which is south of the island of Pag.

The northwestern Adriatic is shallow with a floor of sand and silt and depths generally under 100 meters. The southeastern Adriatic is much deeper and makes up more than 90% of total volume.

The largest island is Krk, known to its inhabitants as "the seventh continent," and the largest peninsulas are Istria and Pelješac. The largest bay is the Gulf of Kvarner (many bays, channels and passages).

The largest river that flows into the eastern Adriatic is the Neretva, and other Croatian rivers that empty into the Adriatic are the Mirna and Raša in Istria, and the Zrmanja, Krka and Cetina in Dalmatia.

RELIEF AND NATURE

The Croatian coast is not attractive only because of its indentation, but also because of the uniqueness of the relief: the steep, karstic mountain ranges of Učka, Velebit, Dinara, Svilaja, Kozjak, Mosor and Biokovo rise above the green of the coast like a magnificent façade. Velebit, the highest and largest of them, spreads for 120 kilometres along the sea. That fantastic mountain, "the pride of the Croatian people," causes both awe, because of its cruelty, and excitement, because of the diversity of natural beauty.

CLIMATE

Because of very gentle and healthy climate, the Croatian coast is very suitable for living and for holidays. Its narrow coastal area and islands have a Mediterranean climate. The most comfortable periods at the Adriatic coast are April and May as well as September and October. During the hottest summer months July and August it is warm in the morning and evening and hot in the afternoon. The air temperature changes depending on the area. Thus, summer temperatures in July will be about 34°C in the northern part, while in the southern part it will rise up to 38°C. In the winter, the coldest temperatures are noticed in the northern Adriatic (up to -16°C), while they will not have exceeded 6°C in the southern part. From the late autumn until the early spring, the biometeorological conditions are ideal for the sport activities.

WINDS

The Adriatic region is a challenging forecast region, mainly because it is surrounded by complex mountainous topography. There are a number of unidentified localized winds but bora, sirocco and north-western wind blow most often.

Bora is a dry and cold wind blowing in bursts from the north-northeast to the east-northeast direction. Bora may be associated with stormy weather, with wind reaching 100 knots or more. The direction in which the wind blows is mostly influenced by the configuration of the shore. The strength of bora is explained by the existence of warm air over the surface of the sea, and a cold layer of air above mountain ranges in the littoral, which cause a strong streaming due to equating of the pressure.

Sirocco is a warm and moist wind which blows from the east-southeast to south-southwest direction. Sirocco brings high waves and rain. This wind is a characteristic for the southern Adriatic, where it blows longer and stronger than in the northern part. In the summer, it usually blows for a couple of days, and in the winter it can last for a couple of weeks. The signs of the oncoming sirocco are the calmness of the sea, weak changeable winds, and dimness of the horizon, the increase of the temperature and moisture, and the gradual decrease of

the pressure.

The landward breeze is a daily, thermic wind blowing from the direction of the northwest, and arises as the land and the sea heat at a different rate. It occurs from the spring to the autumn, and during the day, it often changes the direction. The landward breeze blows more in the southern Adriatic than in the northern Adriatic.

Stiff Breeze The stiff breeze is a wind opposite of the landward breeze. It blows during the night from the direction of the north, north-east in the northern Adriatic, and in the southern Adriatic, from the east or south-east. It's at its peak before the dawn, and subsides over the night.

Beaufort Scale:

beaufort #	knots	description	specification
0	<1	calm	calm, smoke rises vertically
1	1-3	light air	direction of wind shown by smoke not by wind vanes
2	4-6	light breeze	wind felt on face, leaves rustle, vanes moved by wind
3	7-10	gentle breeze	leaves and small twigs in constant motion, winds extends light flag
4	11-16	moderate	raises dust, loose paper, small branches moved
5	17-21	fresh	small trees in leaf begin to sway, wavelets form on inland waters
6	22-27	strong	large branches in motion, whistling heard in wires
7	28-33	near gale	whole trees in motion, inconvenience felt walking against the wind
8	34-40	gale	breaks twigs off trees, impedes progress
9	41-47	strong gale	slight structural damage occurs
10	48-55	storm	trees uprooted, considerable damage occurs
11	56-63	violent storm	widespred damage
12	64-71	hurricane	widespread damage

WAVES

Waves occur primarily as the consequence of wind blowing over the water surface. Their intensity depends on the configuration and the exposure of the coast. Most often, heights of waves in the Adriatic are between 0.5 and 1.5 meters, and they very rarely exceed 5 meters.

TIDES

In the Adriatic, the high and low tides have relatively small amplitudes. In the southern part, the difference is rarely above 0.4 meter, while in the northern part it is somewhat bigger, up to 1 meter in Istria and the Gulf of Trieste. In some narrow channels and bays, the high tide can grow considerably during a strong sirocco. That phenomenon is characteristic for big and deep bays of the southern Adriatic.

SEA CURRENT

Sea currents occur under the influence of winds, the difference in pressure, temperature, and the differences in salinity. With respect to the direction, they can be horizontal or vertical. There are also bottom currents which happen as the consequence of water circulating from warmer areas to colder ones, during which the surface layer gets cold and descends towards the seabed. As throughout the Mediterranean Sea, the current is relatively weak, with weaker current along the Croatian coast, due to the numerous islands, than on the Italian coast. The sea currents have no significant influence on navigation on the Adriatic Sea. The average speed of currents is about 0.5 knots, but they can also rise up to 4 knots.