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## A New Shipwreck Discovered from the Akçakoca Coast, Southwest Black Sea

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#### **Research Article**

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#### **Abstract**

This study focuses on examining a previously unrecorded shipwreck discovered off the coast of Akçakoca district in Düzce, Türkiye. Underwater investigations and visual documentation revealed that the wreck is located 300 meters offshore from Pasalar Beach in Karaburun, Akçakoca, at a depth of 6 meters, with coordinates 41°04'47.71" N and 31°01'51.16" E. The shipwreck's location, physical characteristics, and historical context indicate its potential significance in contributing to the region's history. Initial findings suggest that the wreck may belong to a warship from the 19th or 20th century. Among the hypotheses discussed, the strongest possibility is that it is the "Kütahya Torpedo Boat," which sank after striking a Russian mine on September 14, 1916. The shipwreck, located in an area with a sandy seabed, has been identified as an important artificial reef that could impact the region's marine biodiversity. This study aimed to emphasize the importance of the wreck in terms of regional history, marine heritage, tourism potential, and marine biodiversity, as well as to document the wreck and add it to the scientific literature.

**Keywords:** Shipwreck, Ottoman Navy, war remnants, southwest Black Sea, Akçakoca coast.

#### Introduction

The Black Sea, historically a crucial junction for trade routes due to its geographical and strategic importance, has become the repository of countless shipwrecks scattered in its waters as it has

witnessed countless wars and maritime trade activities since ancient times. These sunken remains not only provide important insights into the region's past but also serve as valuable research areas for archaeologists and historians. In recent years, as a result of increased archaeological research and underwater exploration, many undiscovered wrecks have emerged from the depths of the Black Sea, repeatedly emphasizing the region's historical and international maritime importance (Gedük and Bilir, 2022). Shipwrecks from the Byzantine, Ottoman, and earlier periods, as well as those from World Wars I and II, provide critical data on trade routes and maritime strategies (The Daily Telegraph, 2010).

Along the Akçakoca coastline, known as the historical seaway, artificial reef projects involving more than 100 concrete blocks and the sinking of an old aircraft have recently been carried out to protect and enhance regional marine biodiversity. These efforts highlight the need for such reef areas in the region, making it equally important to investigate the effects of the shipwreck on local biodiversity.

This study examined the shipwreck discovered by a fisherman off the Akçakoca coastline and documented through underwater research and discussed the possibility that the shipwreck, located on the sandy seabed, could serve as an important artificial reef affecting the marine biodiversity of the region. Additionally, the study explored the potential cultural and historical value of the region attributed to this shipwreck and its historical context, which could provide new perspectives on the maritime history of the area.

#### **Material and Methods**

The wreck was located 300 meters offshore from Akçakoca's coast at a depth of 6 meters (Figure 1). Underwater inspections were conducted using a high-resolution (5.7K) 360° underwater camera (Insta3604x).

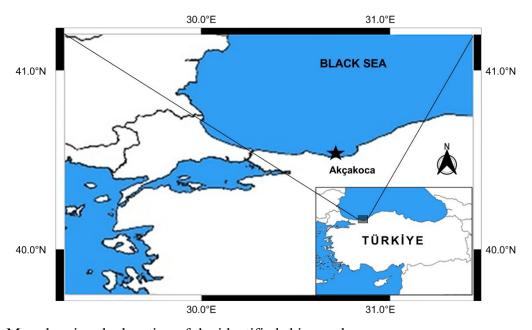


Figure 1. Map showing the location of the identified shipwreck.

Structural remains, metallic fragments, and ammunition-like objects were observed, and relevant authorities were informed (Figure 2). Visual data regarding the wreck's general structure, dimensions, and physical condition were recorded during the dives. Corrosion levels and the state of the metal components were documented as potentially useful evidence for historical analysis. Data obtained from the wreck were cross-referenced with historical records and archival materials to formulate hypotheses about its origin. Previous studies on shipwrecks in the region were reviewed to determine the possible historical period and identity of the wreck.

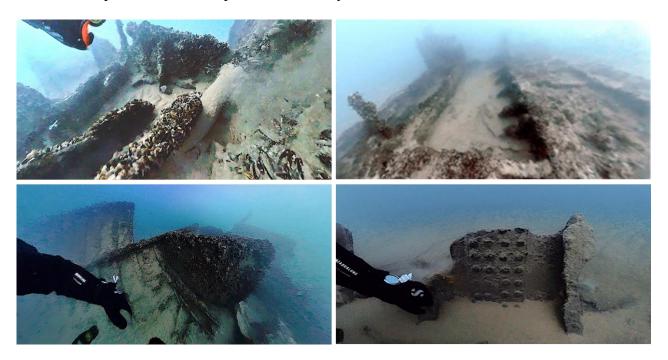


Figure 2. Some images taken from the shipwreck off the coast of Akçakoca.

## **Results and Discussion**

Based on the fisherman's report and subsequent underwater surveys, the wreck was confirmed at coordinates 41°04'47.71" N and 31°01'51.16" E, 300 meters offshore from the Paşalar Beach of Akçakoca at a depth of 6 meters. The wreck's location and physical features suggest its potential historical significance for regional maritime history. Initial findings indicate the wreck may date back to the 19<sup>th</sup> or 20<sup>th</sup> century. Historical events in the region and the discovery of shell-like remains around the wreck raise the possibility that it could be a military ship from the Ottoman period.

One hypothesis initially proposed was that the wreck might be one of the three submarines specifically the U-19 that were brought to the Black Sea by Germany via the Danube River during World War II. This submarine was scuttled on September 11, 1944, by its crew near Akçakoca. However, analysis of the rivet structures on the wreck suggests otherwise, weakening this hypothesis. Another possibility links the wreck to Ottoman Navy such as the *Bezm-i Âlem*, *Bahr-i Ahmer* or *Mithat Paşa* (Figure 3), which were sunk by Russian forces on November 7, 1914, en route to Trabzon carrying winter uniforms, supplies, and ammunition (Altun, 2021).

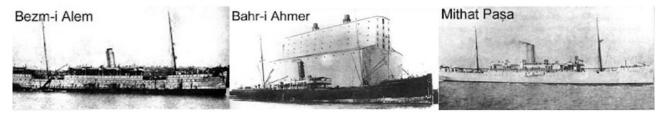


Figure 3. Sunken Ottoman ships Bezm-i Alem, Bahr-i Ahmer and Mithat Paşa.

The most plausible hypothesis based on the literature review is that the wreck might be "Kütahya Torpedo Boat" (Figure 4), which struck a Russian mine on September 14, 1916 (Anonymous, 2025). Matching the wreck's size, Kütahya Torpedo Boat was severely damaged on September 12, 1916, while on transport and escort duty alongside the Ottoman torpedo boats Musul and Yunus, north of Karaburun. After striking a mine, the boat was towed by the other torpedo boats to a mine-free area but began taking on water due to the severity of its damage and sank the following day. Historical records indicate the loss of three crew members (Güleryüz, 2010).



Figure 4. Kütahya Torpedo Boat (Çanakkale Strait, 1913) (Langensiepen and Güleryüz, 1995).

*Kütahya Torpedo Boat* was 51.2 meters long and 5.7 meters wide. After 1915, it was equipped with a 57 mm Krupp rapid-fire gun (100 rounds), two 37 mm Hotchkiss rapid-fire guns (250 rounds), and two 450 mm torpedo tubes (four torpedoes) (Anonymous, 2025). It is assessed that findings related to these armaments in future studies on the wreck would be crucial for verifying its identity.

In conclusion, the wreck should be officially registered and protected, and research should focus on its potential as a tourism site and an artificial reef contributing to marine biodiversity. Detailed geophysical surveys and archaeological studies are required to fully uncover its historical identity and structural characteristics.

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#### **Conflict of Interest**

The authors declare that for this article they have no actual, potential or perceived conflict of interest.

#### **Author Contributions**

All authors contributed equally to the study's design, data collection, analysis, and manuscript preparation.

## **Ethical Approval Statements**

No ethics committee permissions are required for this study.

## **Data Availability**

The data used in the present study are available upon request from the corresponding author.

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