

REEF SMART GUIDES



SCUBA DIVE SNORKEL SURF

NORTHWEST FLORIDA

G U L F O F M E X I C O



Acknowledgments

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About Reef Smart:

Reef Smart creates detailed guides of the marine environment, particularly coral reefs and shipwrecks, for recreational divers, snorkelers and surfers. Our products are available as printed guidebooks, waterproof cards, wall art, dive briefing charts, weatherproof beach signage and 3D interactive maps, which can be used on websites and as apps. Reef Smart also provides additional services to resorts that are dedicated to offering an environmentally aware experience for their guests; these include marine biology training for dive professionals and resort staff, implementation of coral reef monitoring and restoration programs, and the development of sustainable use practices that reduce the impact of operations on the natural environment.

www.reefsmartguides.com

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How to use this book

Objective

The main objective of this guidebook is to provide a resource for people, particularly divers and snorkelers, who are interested in exploring underwater sites in the Gulf of Mexico along the coast of Northwest Florida. This guide is designed to be used alongside Reef Smart waterproof cards, which can be taken into the water. This book will be most useful for watersports enthusiasts but also includes information that any visitor will find useful.

Mapping

We have attempted to catalog as many of the region's dive sites as we can, starting at the Alabama-Florida border, and working toward the east, ending with Panama City and Mexico Beach, with the inclusion of a few important sites that lie outside this region. We have attempted to catalog all of the dive-focused artificial reefs and shore-accessible sites in this area, with greater detail and focus on 59 sites, with 48 presented using Reef Smart's unique 3D-mapping technology. These maps provide useful information such as depths, currents, waves, suggested routes, potential hazards, unique structures and species information that cannot be found in other guides.

Disclaimer

Reef Smart guides are for recreational use only – they are not navigational charts and should not be used as such. We have attempted to provide accurate and up-to-date information for each site. However, change is inevitable in the marine environment and as such, the information in this guide is accurate only at the time of publication. We have suggested a level (Open Water, Advanced or Tech) based largely on the depth, but also the current and complexity of each

DID YOU KNOW?

Artificial reefs have been used to enhance marine habitats for centuries. Since the 1950s, all manner of structures, from railroad cars to stoves, have been placed on the seabed off Northwest Florida. These days, artificial reef placement is strictly regulated by the government, but remnants of this haphazard "dumping" are still evident across the region. In creating this guidebook, Reef Smart has focused only on documenting the major artificial reefs commonly used by divers and snorkelers.

site under ideal conditions. It should be noted that some sites, even those indicated as Open Water level, may include Advanced dive profiles and routes. It is important therefore, to always follow the advice of certified dive professionals on the day you visit these sites and always dive within the parameters of your certification and experience. Suggested routes are optional and the size and location of structures, depths and distances, may vary from the approximations used.

Reef Smart assumes no responsibility for inaccuracies and omissions and assumes no liability for the use of these maps. If you identify information that should be updated, please contact us at: info@reefsmartguides.com.

Information boxes

Additional information for the featured sites is provided in the form of special information boxes, which appear throughout the book:

DID YOU KNOW?

Interesting facts about the site or the surrounding area.

SAFETY TIP

Advice that aims to improve safety.

ECO TIP

Information that will help limit damage to the ecosystem or improve environmental awareness.











RELAX & RECHARGE

Information on where refreshments can be purchased, or where to unwind on land. No compensation was received in exchange for featuring these establishments.

SCIENTIFIC INSIGHT

Information of a scientific nature that can help you understand what you see and experience.

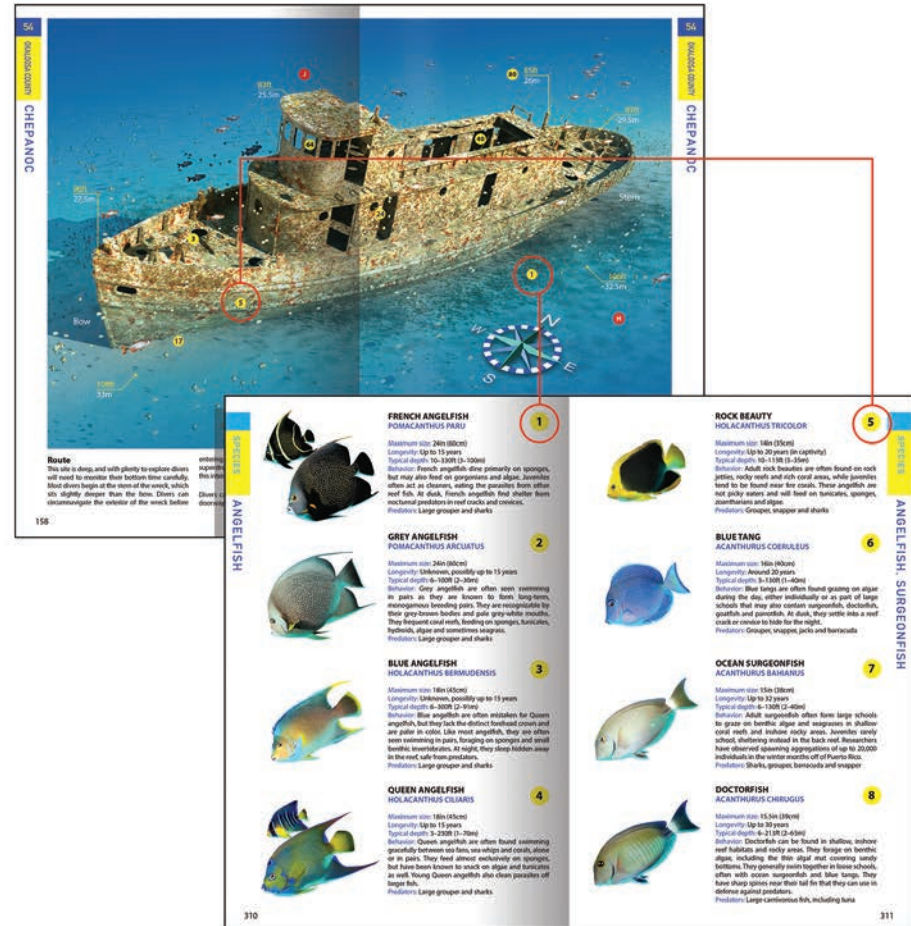
Map icons

	SCUBA dive		Surf
	Snorkel		Kiteboard
	Wreck		Wind surf
	Access by boat		Reef Smart maps
	Access by swim		
	Access by car		

Species identification

The species listed for each location were chosen to represent the most unique or common organisms found at each site, as determined from personal observations, discussions with divers and snorkelers who have experienced these sites, and from scientific studies conducted

in these areas. Many of the species described in this publication are mobile or cryptic (or both), and so may not always be found where indicated. However, we have attempted to place key species on each map in the locations where they are most commonly found.



Species description

The species letters and numbers on each map link to descriptions located at the back of the book (on pages 300–332). Reef Smart uses the most frequently cited common name for a species. As common names vary from place to place, we have also provided the scientific name for each species, which remains the same worldwide. Scientific names are usually of Latin or Greek origin and consist of two words: a genus name followed by a species name. By definition, a species is typically a group of organisms that can reproduce together

such that it results in fertile offspring; a genus is a group of closely related species.

The descriptions of each species are based on the scientific literature as it existed at the time of publication. Scientific knowledge often advances, however, and the authors welcome any information that helps improve or correct future editions of this guidebook. In-depth species profiles, including images and videos, are available for free on our website – Reefsmartguides.com.

Our “blue planet”

Oceans

Water covers nearly three-quarters of our planet’s surface and approximately 96 percent of this water is contained in the major oceans of the world. The oceans drive our planet’s weather, regulate its climate and provide us with breathable air, which ultimately supports every living creature on Earth.

The oceans are also vital to our global economy. They produce the food that billions of people depend on for survival, while being a source of resources, including essential medicines that treat a wide range of ailments and diseases. The oceans also drive local and regional economies through tourism. Every year, millions of travelers are drawn to coastal regions around the world to enjoy activities above and below the water. Considering how important the oceans are to our way of life, it is incredible how little we know about what lies beneath their surfaces.

Coral reefs

The oceans include a wide range of different ecosystems, but perhaps the most frequently visited marine ecosystems of all are coral reefs. Coral reefs are known as the “rainforests of the sea” for good reason – they are one of the most diverse ecosystems on the planet, supporting about a quarter of all known ocean species. This figure is even more astounding when you consider that coral reefs comprise just a fraction of one percent of the ocean floor. They are also particularly vulnerable to degradation, given they are only found in a narrow window of temperature, salinity and depth.

Humans have studied the biology and physiology of corals for decades, but the underwater environment remains largely foreign to many people. Fact is, we have more accurate maps of the surface of Mars than we

do of the seafloor. And guides of the marine environment suitable for recreational users are almost non-existent.

Reef Smart aims to change this situation. Our detailed guides seek to educate snorkelers and divers alike. Our goal is to improve safety and enhance the marine experience by allowing users to discover the unique features and species that can be found at each site.

Preserve and protect

Hopefully our guidebooks and handheld waterproof cards will help you get to know the underwater environment in general, and reefs in particular. We believe that the more people can come to appreciate the beauty of the underwater world, the more they will be willing to take steps to protect and preserve it.

The world’s oceans are experiencing incredible pressures from all sides. Rising temperatures, increasing acidification and an astonishing volume of plastics that end up both in the water and in marine organisms are negatively impacting these precious ecosystems.

There are some big problems to overcome. But a better, more sustainable future is possible. Each and every one of us can make a difference in the choices we make and the actions we take. Together we can help make sure the coral reefs of this world are still around for future generations of snorkelers and divers to enjoy.

Sincerely, the Reef Smart team

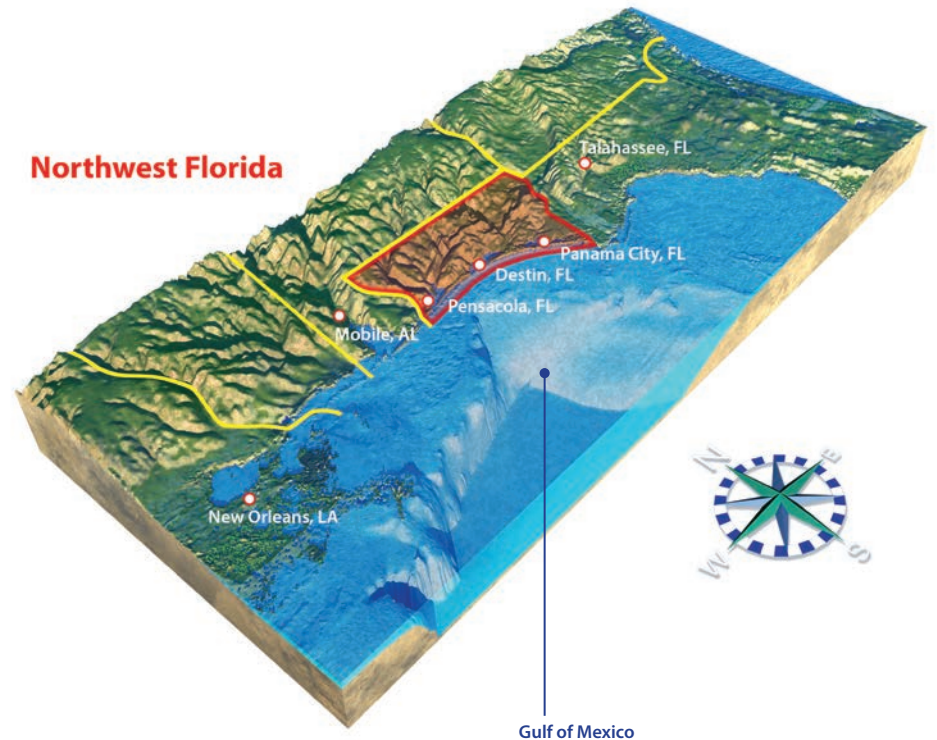
About Northwest Florida

Location and formation

As the name implies, Northwest Florida is in the northwestern part of the state of Florida, which itself is in the southeastern corner of the continental United States of America. This section of Florida is often referred to as the “panhandle,” because its shape resembles the handle of a pan attached to the peninsula that forms the rest of the state. It is located on the large body of water known as the Gulf of Mexico, which is an ocean basin in the Atlantic Ocean and is mostly encompassed within North America.

In total, Northwest Florida includes roughly 16 of the state’s 67 counties. However, the focus of this guidebook is the five coastal counties that comprise the westernmost reaches of the state, including the counties of Escambia, Santa Rosa, Okaloosa, Walton and Bay. Together these counties include more than 120 miles (200 kilometers) of sandy coastline along the northeastern edge of the Gulf of Mexico. Most of the region’s population and development is concentrated along the beaches and barrier islands.

The state of Florida sits on the Florida Plateau, a geological formation dating back 530 million years. The plateau formed through a mix of volcanic activity and marine sedimentation. Many of Florida’s features and soils reflect this marine past and Northwest Florida is no exception, although



The topography and bathymetry of Northwest Florida and its surroundings.

the panhandle region differs from most of the rest of the state in that it reaches a higher maximum elevation. Near the northern border with the state of Alabama, elevations exceed 300 feet (91 meters) above sea level. Most of the development along the coast is concentrated within just 40 to 50 feet (12 to 15 meters) of sea level, however.

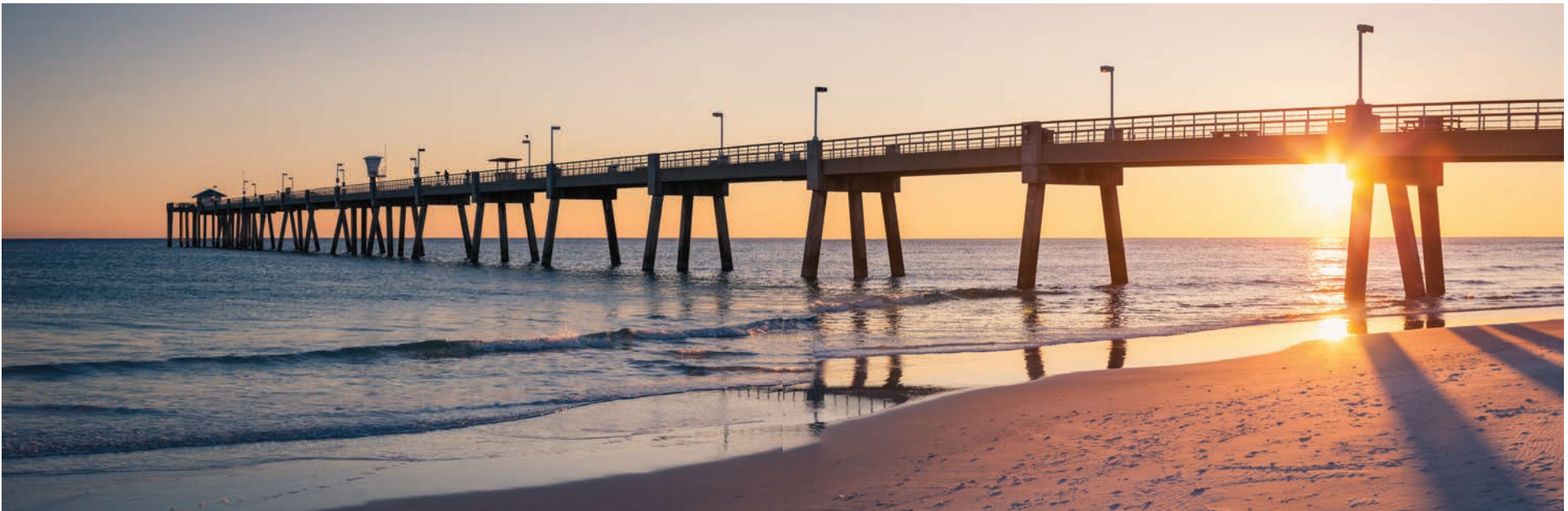
The flat, relatively shallow Florida plateau extends 20 to 40 miles (32 to 64 kilometers) out from the coastline, which means divers must venture relatively far out into the Gulf to find depths in excess of 80 to 90 feet (24.5 to 27.5 meters).

ECO TIP



We hope this guide enhances your in-water experience. Share your passion for exploring the marine environment with others, because our oceans, and particularly coral reefs, need all the “likes” they can get. Coral reefs, as well as mangrove and seagrass ecosystems, are under serious

pressure from a multitude of threats that include coastal development, pollution, over-fishing and global climate change. Some estimates put over half the world’s remaining coral reefs at significant risk of being lost in the next 25 years; raising awareness can help protect them.



The sun sets on the Okaloosa Fishing Pier in Fort Walton Beach.

The history of Northwest Florida

Archaeologists have found evidence that pre-Clovis humans butchered mastodons in northern Florida almost 15,000 years ago. These findings helped confirm that humans not only migrated into North America earlier than 13,000 years ago, which was previously believed based on the “Clovis Hypothesis,” but that mastodons frequented what is now coastal Northwest Florida.

Evidence of large earthworks and mounds dating from between 800 AD and 1550 AD have been identified in the region, including around Pensacola and Fort Walton Beach. These mounds speak to the history of occupation that predated the arrival of Europeans. From at least 1000 AD, a tribe of native American farmers known as the Apalachee lived in the eastern portion of Northwest Florida. Meanwhile, the Creek Indians controlled most of this region, with their territory stretching from modern-day Pensacola in the west to the Apalachicola River in the east. Their territory also stretched into modern-day Alabama and Georgia to the north. Farther to the west was the Choctaw tribe, in what is now coastal Alabama.

The first European explorers may have reached Pensacola Bay from Cuba as early as 1516. However, the first multi-year settlement was not established until 1559 – this predates the establishment of St. Augustine, Florida, which is

the oldest, continuously inhabited city in the U.S. The Spanish expedition, led by Don Tristán de Luna y Arellano, sailed out of Vera Cruz, Mexico, with 1,500 colonists on 11 ships. They settled in modern-day Pensacola, but within weeks of landing, the fledgling colony was decimated by a powerful hurricane that sank six of the ships, ruined supplies and resulted in the death of many colonists and sailors. The settlement struggled on for two years before it was abandoned in 1561. The Spanish deemed the region too dangerous for future settlement, and the area remained largely ignored until the end of the 17th century.

In 1698, the Spanish refounded what is now Pensacola as a buffer to the French presence in Louisiana. The buffer failed, however, and the French captured the lightly defended Spanish fort at Pensacola in 1719 – the garrison commander was unaware that Spain and France were at war when the French forces showed up to take the fort. The French held the town for just three years before a hurricane devastated the area. The French left Pensacola in 1722 and the Spanish reoccupied it. This occupation lasted just two decades, but it saw the development of Pensacola as an important port in the region thanks to its deep-water harbor. It also marked the beginning of a centuries-long pattern of Pensacola changing hands among various European superpowers. It was never fully abandoned during this period, however, in part due to its strategic importance.

The British were the next to take control of Pensacola, taking it over in 1763 at the conclusion of the Seven Years War (known in America as the French and Indian War) under the Treaty of Paris. The town was named the capital of British West Florida and saw further development of the harbor and shipyards. During the American Revolution, Florida (which

included West Florida and East Florida at the time) remained loyal to the crown. In support of the revolution, Spain’s Bernardo de Gálvez (who was the Spanish equivalent of the better-known Marquis de Lafayette) led an attack on Pensacola in 1781, capturing both the town and West Florida for the Spanish, who held the region for the next 40 years.

The original prop of the *Empire Mica* now sits outside the Capt. Anderson’s Restaurant in Panama City Beach.



An aerial view of Destin Harbor in Okaloosa County.

pisaphotography/Shutterstock©

In 1802, France forced Spain to cede control of the Louisiana territory. Only a year later, France sold the entire territory to the United States (the famous Louisiana Purchase) after financial difficulties following a slave revolt in Haiti. The U.S. acquisition of Louisiana effectively doubled the size of the fledgling nation. The U.S. then proceeded to annex the Spanish region from the Mississippi River to Pensacola between 1810 and 1819, incorporating this area into the existing states of Mississippi and Alabama.

After additional pressure, Spain eventually ceded all of Florida to the U.S. in 1821, and the decision was made at that time to leave Pensacola as part of the new state of Florida. This decision is why modern-day Florida includes a panhandle, and why Alabama has access to only a small section of the Gulf of Mexico coastline.

Recent history

Pensacola remained the economic center for the region well into the middle of the 20th century thanks in part to an economic boom from 1880 to 1920 due to timber harvesting. Nearby Destin, a town settled in 1845 by Leonard Destin, a fisherman, and his family from Connecticut, was primarily a subsistence fishing community until ice machines allowed fish to be shipped and sold at larger inland markets, thus increasing the scale of the nascent industry. To the east, Panama City enjoyed its own economic growth due to a combination of the timber trade and commercial fishing. As a region, however, Northwest Florida did not experience real economic development until the industrial boom following the Second World War.

During the postwar era, many servicemen returned to the U.S. and chose to settle in Florida because of the mild climate. From 1950 to 1980, the region's population more than doubled. Okaloosa County more than tripled, from 27,500

to 109,900, during this period. As the economy of the region developed, it became largely focused on its economic relationship with the three major military bases located here, including the Naval Air Station in Escambia County, Eglin Air Force Base in Okaloosa County, and Tyndall Air Force Base in Bay County. Tourism makes up the other main component of the region's economy. The rise of industrialization across the U.S. led to a growing middle class with discretionary income, and tourists flocked to the region to take advantage of Northwest Florida's sandy beaches and pleasant weather.

Northwest Florida today

Population

Today, the five counties of Escambia, Santa Rosa, Okaloosa, Walton and Bay have a combined population of nearly 1 million, with Escambia and Okaloosa accounting for the lion's share. The region's main population centers are

Pensacola in Escambia County, the Destin-Fort Walton Beach area in Okaloosa County, and Panama City in Bay County.

The basics

English is the official language in Northwest Florida, as it is in the continental U.S. Spanish is less commonly heard than in other parts of Florida given the region's geographic and cultural distance from the Latin-influenced southeast. The official currency is the U.S. dollar and there are plenty of bank branches, ATMs and foreign exchange counters in all the major cities.

The electricity in Northwest Florida is the North American standard 110 volts / 60 hertz with flat-bladed plugs and a rounded grounding pin. WiFi is available at most hotels and in many coffee shops, eateries and other local businesses – sometimes free, sometimes paid. Tap water is safe to drink here. The region operates in the Central Standard Time (CST) zone, which is one hour behind the rest of the state. Daylight Savings Time (CDT) is in effect from March to November.

Visitors

There are nearly 30 million visitors to Northwest Florida each year. Many come from surrounding states in the south and southeast U.S. Visitors come for the sandy beaches, the sport fishing opportunities and for the diving and snorkeling. Most visitors are from elsewhere in the U.S., but there is a growing international presence.

Getting there and getting around

Getting there

There are no direct international flights to the region, but many U.S. international hubs connect to one of the three commercial airports in the region: Pensacola International Airport (PNS), Destin-Fort Walton Beach Airport (VPS), and Northwest Florida Beaches International Airport (ECP) in Panama City. The region is also easily accessible via the U.S. system of interstate highways.

Getting around

Driving is the most common way of getting around Northwest Florida. Most major car rental companies operate in the region. U.S. Route 98 represents the primary east-west highway as it runs along the coast and passes through all three major population centers. The highway starts at the state border between Alabama and Florida and runs along the coast before turning southeast and crossing the Florida peninsula, terminating in West Palm Beach on the Atlantic coast. Drivers also have the option of using

Interstate 10 to navigate through the region, but this major highway sits inland from the coast, paralleling Route 98. Although I-10 passes through the city of Pensacola, it is situated well north of Panama City and Destin, which is why U.S. 98 is a more popular option.

Public transportation systems operate in many of the individual counties without much overlap from county to county. The Escambia County transit system, known as ECAT, centers around Pensacola (www.goecat.com), while the system operating in Okaloosa County is called the Emerald Coast Rider (www.ecrider.com). The latter only goes as far west as the Fort Walton Beach area, however. Walton County has a free shuttle service named GoWal (www.gowaltransit.com), but this service primarily operates along a north-south route that services residents and visitors traveling between the northern part of the county and the coast. Panama City and Panama City Beach are serviced by Bay County's Bay Town Trolley system (www.baytowntrolley.org). Taxis and ride-share companies such as Uber and Lyft operate across the region as well, but visitors looking to dive across multiple counties during their stay should consider renting a car. Just be sure to leave extra time for traffic during rush hour from 6am to 9am on weekday mornings, and 4pm to 6pm on weekday evenings.



Pensacola Beach's iconic water tower is a landmark you can see for miles.

Located just outside of Destin, Florida, Crab Island is a popular sandbar where people gather to unwind.



Environment

Weather

Northwest Florida has a mild climate relative to much of the continental U.S., but temperatures tend to be cooler here than in southern Florida. The winter season, which stretches from December to February, can approach freezing temperatures with overnight lows of 35°F to 40°F (2°C to 4.5°C). Daytime temperatures are generally much more comfortable, with highs ranging from 62°F to 65°F (16.5°C to 18.5°C). Fall (October and November) and spring (March and April) are relatively dry months with mild temperatures. May is the unofficial start of the summer season in Northwest Florida with the arrival of warm and humid air masses from the tropics. During the summer months, daytime highs typically average between 85°F and 90°F (29.5°C and 32°C) while nighttime lows stay comfortably in the 70°F to 77°F range (21°C to 25°C). Humidity is higher during the summer than in the winter. Water temperatures generally align with the seasons, with summertime sea surface temperatures averaging around 85°F (29.5°C) while wintertime

temperatures can get down to a chilly 64.5°F (18°C). Wetsuits are often recommended outside of the summer season.

Northwest Florida is the most hurricane-prone area of the state due to the warm, shallow waters of the Gulf of Mexico, which tends to favor their development. The official hurricane season stretches from June to November, with the peak in activity typically occurring between August and November. Over the years, hurricanes have caused a lot of damage in the region. One of the most devastating storms of recent years was Hurricane Michael – the first Category 5 hurricane on record to impact Northwest Florida. It made landfall near Panama City in 2018 and caused 59 fatalities in the U.S. and over \$25 billion USD in damages. Many hurricanes that enter the Gulf of Mexico make landfall farther to the west, in nearby Louisiana or Texas. These storms may cause little physical damage to Northwest Florida, but they can cause high waves, strong currents and reduced visibility due to the shallow waters and sandy bottom along the coast.

DID YOU KNOW?

When the weather is “blown-out” along the Gulf Coast, which is the term used by locals for wave action that restricts access to the ocean, many people head inland to explore the area’s many freshwater springs. While some of the better-known springs are located farther to the east, there are some 40 diveable springs in

Northwest Florida. Due to the geology of the area, these springs are mostly limited to Walton and Bay counties, as well as nearby Washington and Holmes counties. Two of the most accessible and popular springs, Vortex Spring and Morrison Springs, are described on page 294 in greater detail. Many local dive shops visit these springs regularly and may conduct some of their training dives there.

Waves and visibility

In general, the Gulf of Mexico experiences moderate waves and decent visibility, however conditions can deteriorate quickly. Wind direction plays a big role in determining wave height. For instance, winds from the south can create large, offshore waves across the entire region, while conditions tend to be better when winds come from the north. An easterly wind favors diving off of Panama City, which receives shelter from the shore, while a northwesterly wind can favor diving out of Pensacola or Destin.

Visibility can vary from day to day as winds and currents disturb the sandy sediment. Typical visibility is 30 to 50 feet (9 to 15 meter) although it can range from 10 feet (3 meters) to 100 feet or more (30 meters). In general, visibility declines close to major rivers and passes, particularly where Mobile Bay and Perdido Bay empty into the Gulf to the west of Pensacola. And while offshore sites tend to have better visibility than inshore sites, there is no guarantee.



Rob Heiner/Shutterstock

Grass covered dunes border much of the Gulf along Northwest Florida, like this stretch near Panama City Beach.

Currents and tides

Currents in the Gulf of Mexico are generally mild. The large ocean basin is cut off from the stronger oceanic currents of the Atlantic. However, a large storm system in the region can trigger strong currents, including powerful longshore and riptide currents. Tides in the Gulf of Mexico are relatively mild compared to the rest of Florida. The shift in sea level from high to low tide is usually less than a foot in height (0.3 meters). The biggest impact of tides in the region is on dive and snorkel sites located near passes. Visibility is at its best on an incoming tide, and at its worst during an outgoing tide as the waters of the various bays and sounds empty into the Gulf. Despite generally moderate conditions in the Gulf, divers and snorkelers should take all necessary precautions before entering the water from the shore or when diving without the support of a boat.

Ecosystems**Natural reefs**

The Gulf of Mexico along the coast of Northwest Florida does not feature many hard-bottom areas, and the colder temperatures mean the region does not feature the typical coral reefs – whether living or relic reefs – that are common along the coasts of southeast Florida or the Florida Keys. However, there are natural limestone ledges ranging in height from just 2 feet (0.6 meters) to more than 10 feet (3 meters). These natural ledges are important habitat for reef fish in this region, and support everything from sea fans to colorful sponges and soft corals. These ledges are popular with divers and fishers as they support a high diversity of reef creatures. But they are also susceptible to concentrated fishing and diving pressures. The extensive deployment of artificial reefs in this region is, in part, an attempt to relieve fishing and diving pressure on these natural reefs. In support of this effort, we have chosen to feature artificial reefs in this guidebook rather than the natural ledges in the area. The one exception is White Hill Ledge (see page 168) which is already well known to the public and is located around 500 feet (150 meters) north of the *Destin Liberty Ship*.

Artificial reefs

Artificial reefs started appearing in Northwest Florida in the 1950s and ‘60s, when fishers began placing all manner of structures in the water to attract fish. Today, the deployment of artificial reefs follows a strict permitting process. It reflects the science of what

makes for a good reef and where it should be deployed to enhance the local ecosystem while also providing support to recreational activities such as diving. Each county has its own artificial reef coordinator who works in partnership with the state artificial reef program, which is part of the Florida Fish & Wildlife Conservation Commission (FWC). Artificial reefs feature large vessels and other structures that have been cleaned of potential contaminants and sunk off shore, including tanks, tugboats, hovercraft, bridges and even an aircraft carrier. But they can also be piles of concrete, including rubble, culverts and old concrete military targets, which can stretch across many acres. County reef coordinators also deploy specific reef module designs depending on the characteristics of the site and the goals for the reef. These modules can range from towering pyramids to 10-foot (3-meter) pylons featuring multiple discs to support a variety of marine life. Many of these artificial reef modules are built and deployed by regional artificial reef contractor Reefmaker/Walter Marine. Visit: Reefmaker.com.

Estuaries

Barrier islands are an important feature along the coast of Northwest Florida. These long, narrow stretches of accumulated sand not only buffer the adjacent land from the impacts of powerful hurricanes, but they shelter estuaries and bays on the “sound” side, opposite the Gulf waters. These estuaries are important nursery habitats for a variety of juvenile commercially, recreationally and ecologically important fish species. These young fish shelter and forage in shallow seagrass beds, oyster habitat or mud flats until they grow large enough to venture out into the Gulf of Mexico. There are multiple shore-accessible snorkel and diving sites located in the sound and bay side of the barrier islands, particularly in Escambia and Santa Rosa counties. These sites generally have lower visibility than those found in the Gulf and are generally less popular with divers and snorkelers as a result. They still offer plenty of interesting reef life to observe. Many organizations work to protect the various bays and estuaries in Northwest Florida, including the Pensacola Perdido Bay Estuary Program (in Escambia County), the Choctawhatchee Bay Estuary Program (in Okaloosa County) and the St. Andrews Bay Estuary Program (in Bay County).

Marine management, research and conservation

As one might expect for a region so closely tied to the marine environment, Northwest Florida has a full complement of aquariums, rehabilitation centers and marine conservation organizations. Visitors to the region have plenty to keep them busy when they are not spending time in the water. Here are just a few of the local organizations that are helping protect Northwest Florida's ecosystems.

Emerald Coast Wildlife Refuge

Based in Navarre, the refuge is active across all five counties, focusing its efforts on the rehabilitation and release of wildlife. Visitors can stop in and tour the grounds, visiting with the refuge's handful of species ambassadors. The education and outreach center is open Wednesday through Saturday from 9am to 3pm, and Sunday 11am to 3pm. If you see an injured or stranded animal, you can call the refuge at 850-684-1485, or report it on their website.

Visit: Emeraldcoastwildliferefuge.org

Emerald Coast Science Center

An interactive museum based in the Fort Walton Beach region of Okaloosa County, the Emerald Coast Science Center provides families with an opportunity to learn more about the marine environment. The center is generally open Wednesdays through Saturdays from 10am to 3pm. Visit: Ecsience.org

Navarre Beach Sea Turtle Conservation Center

This sea turtle conservation center aims to support the local sea turtle population through

a variety of measures, including monitoring nesting beaches, rehabilitating injured sea turtles and conducting public education and outreach. The center is open to visitors, but hours vary. Visitors should check online for upcoming events. Visit: Navarrebeachseaturtles.org

Navarre Marine Science Station

This small Navarre-based science station is an interactive center launched by local students. The station offers environmental programs for school groups and provides education about everything from plankton and whales to watershed issues. Hours vary, so visitors should go online to see when the station is open. Visit: Navarresciencestation.org

Choctawhatchee Basin Alliance-Northwest Florida State College

The CBA works to improve and protect the water quality in local waterways in the Choctawhatchee Bay watershed – the large bay located in Okaloosa and Walton counties. The organization does research, education and outreach and hosts volunteer efforts to clean up the waterways, including the removal of invasive species. For volunteer opportunities or more information, visit: Basinalliance.org

Science Discovery Center of Northwest Florida

Based in Panama City, this local science center offers children and adults the opportunity to experience hands-on, interactive exhibits about science and technology. For more information, visit: Scienceanddiscoverycenter.org

SCIENTIFIC INSIGHT



Invasive lionfish pose a real threat to marine ecosystems in the Caribbean and Atlantic Ocean. Lionfish are indigenous to the Indo-West Pacific oceans and are now established in the Western Atlantic, including the Caribbean Sea and Gulf of Mexico. They were first spotted near Dania Beach in southeast Florida in 1985. The most likely theory behind their origin is the intentional release of aquarium fish into local waterways. Since then, the lionfish population has expanded south throughout the Caribbean and north into the Carolinas, as well as west into the Gulf of Mexico. Initial genetic testing suggested that the current Caribbean-wide population originated from just 10 individuals, but more recent studies

place the original number of colonists at closer to 120, likely released over multiple instances.

The main threat posed by lionfish is that they are voracious predators. They feed on fish and crustaceans and are not picky about what species they target. According to the National Oceanic and Atmospheric Administration (NOAA), an adult lionfish's diet includes more than 160 different species, including many that are ecologically or economically important. They also reproduce incredibly rapidly, producing on average thousands of eggs every few days throughout the entire year. Without any consistent natural predators outside of the Indo-West Pacific region, they have the potential to cause significant changes to the reef ecosystems they have invaded.

Lionfish are unlikely to ever be fully removed from the Western Atlantic at this point – there are just too many of them and they are too well established. However, there are many long-term efforts underway to help control their numbers. Divers have become particularly effective at removing lionfish through spearfishing. Lionfish derbies (fishing competitions) have become popular in Northwest Florida, as well as throughout the Caribbean, and many restaurants are now serving lionfish dishes, sometimes using fish that customers have caught themselves.

Nature is helping fight back as well. Starting in 2017, lionfish began appearing with skin lesions that were deep enough to expose the fish's underlying muscle tissue. Instances of the lesion became increasingly common through 2018, and the lionfish population in the Northwest Panhandle plummeted.

By 2019, dive sites that once hosted dozens of lionfish might have just one or two. Most experts believe the virus will not be enough to eliminate the invasive species, although it might help control their numbers. However, by 2020, there was evidence that the population was once again increasing.

Many non-profit organizations are working to help tackle the lionfish invasion as part of broader mandates to help protect marine ecosystems and the reef resources. Part of these efforts include raising public awareness, but also looking to build public-private partnerships to incentivize the removal of lionfish through fishing competitions and creating demand for these invasive and delicious creatures. For more information on some of these organizations, visit: [CoastWatch Alliance.org](http://CoastWatchAlliance.org), Lionfishuniversity.org, Reef.org, Sealeg.org

The invasive lionfish.



Diving and snorkeling

Northwest Florida offers an amazing array of diving and snorkeling experiences for visitors and locals alike. From shore-accessible artificial reefs and jetties to open water wrecks and natural ledges, the region boasts something for everyone regardless of their level of experience.

Most artificial reefs in Northwest Florida are strategically positioned around one of three passes or inlets: Pensacola Pass, Destin East Pass

and St. Andrews Pass. The reefs range in size from small modules, often deployed as part of a larger reef system, all the way up to massive wrecks measuring over 800 feet (240 meters) in length. While some of the region's artificial reefs are deployed in less than 50 feet (15 meters) of water just a short boat ride from a pass, others lie 20 to 40 miles (32 to 64 kilometers) off shore at depths of more than 200 feet (60 meters).

ECO TIP



This guidebook focuses mostly on Northwest Florida's artificial reefs. The region does have a number of natural limestone ledges, but the primary habitat for divers and snorkelers to explore are the area's artificial reefs. Ledges represent an important biological resource

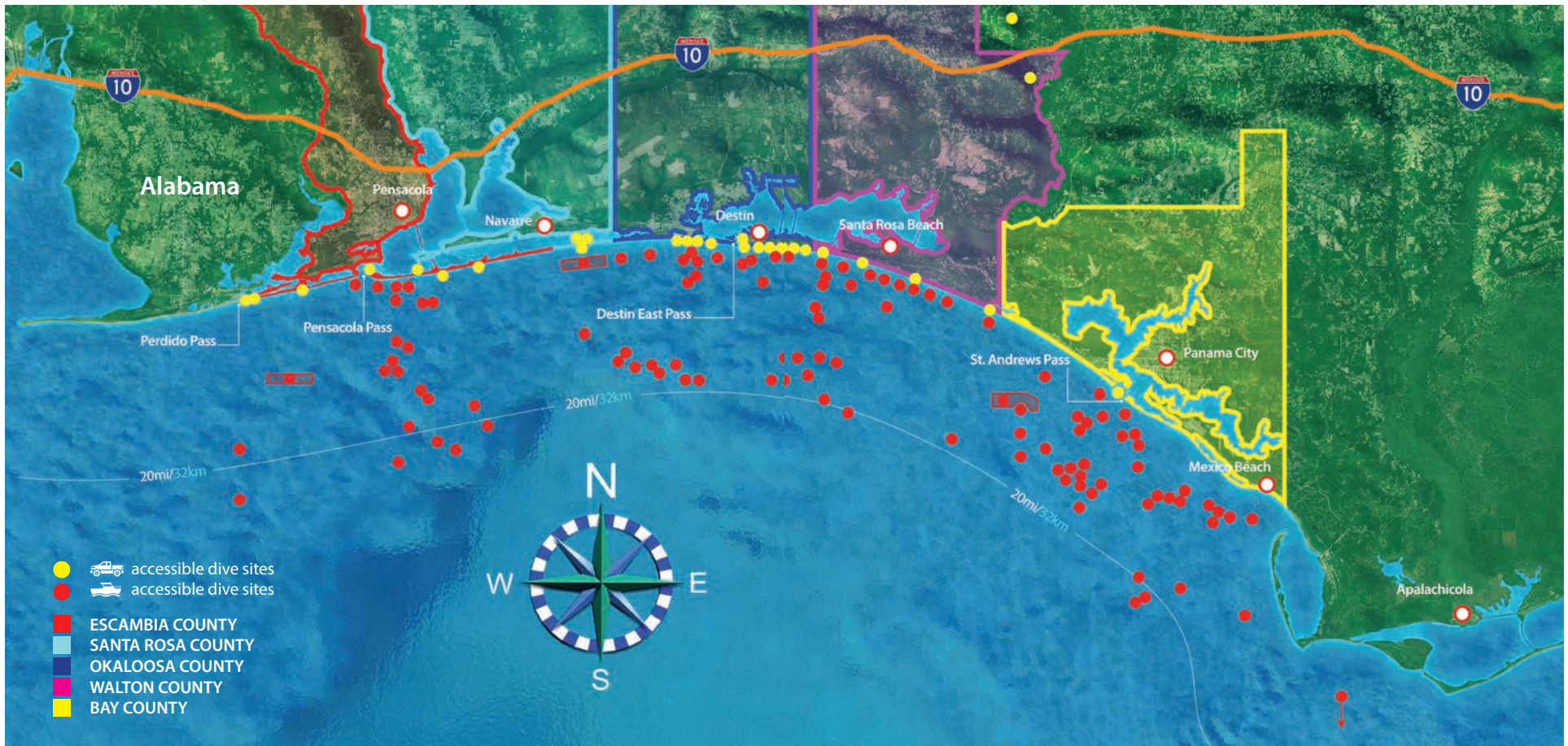
that can be easily disturbed, so divers should be particularly careful to minimize their impact when visiting these ecosystems. Divers who wish to visit Northwest Florida's natural ledges can reach out to local dive shops, most of whom schedule trips out to these ledges on a semi-regular basis.

We have highlighted 59 of the region's most popular dive and snorkel sites in this guidebook, many of which are accessible from shore. We also provide a list of dive-oriented artificial reefs so that visitors can explore some of the less popular sites as well. Even so, this secondary list represents just a subset of the total list of artificial reefs deployed in the Gulf of Mexico along this stretch of coastline. Many of these other artificial reefs are geared toward the fishing community, based on their depth, location or other characteristics but are still interesting to explore.

For each site described in detail in this guidebook, we provide the history of the reef (if available) to give divers some interesting context during their visit. Our three-star rating system offers insight into the difficulty level, strength of the current, depth, and the quality of the reef and fauna that divers and snorkelers are likely to encounter. We offer a suggested


route and point out some of the key information to enhance the in-water experience, such as what species to look for and what key features to observe. When coupled with detailed 3D renderings of wrecks and reefs, divers and snorkelers will have an idea of what to expect before they venture into the water.

The counties of Northwest Florida have invested significant time money and resource in developing these sites over the years and are still actively adding new artificial reefs when budgets permit. This guidebook is accurate as of its publication date, and divers and snorkelers should check with local dive operators to see what new and exciting artificial reefs there are to visit. We will continue to revise and expand our guidebook in the future to help ensure we offer the most up-to-date information possible. Each county manages its own list of reef sites and we provide the websites in the introduction pages for each county.



Difficulty	●●●○
Current	●●●○
Depth	●●●○
Reef	★☆☆
Fauna	★★★



Access  about 13mi (21km) southeast of Pensacola Pass



Level Open Water

Location

Pensacola, Escambia County
GPS 30°08.775'N, 87°14.052'W

Getting there

Pete Tide II is considered a mid-shore dive site among local operators, as it is located closer to shore than the distant sites of *Oriskany*, *Antares* and *Avocet*. Even so, it is still far enough out to sea that access is generally limited to local charter boats or boat operators who have experience handling the changing weather of the Gulf of Mexico. There are no surface mooring buoys at this site, so operators typically tie in to the wreck itself or anchor in the sand nearby.

Access

This wreck is accessible to a wide range of divers. Located in line with Pensacola Pass and the offshore dive sites, *Pete Tide II* makes for a good second dive. It is best reached via one of the dive shops operating out of the Pensacola Pass, although it is well within reach of operators from coastal Alabama and even those operating out of Destin East Pass to the east.

Description

Pete Tide II had a career servicing oil fields in the Gulf of Mexico that lasted two decades. Measuring 165 feet (50.5 meters) in length, she was originally built in 1973 by Halter Marine in Lockport, Louisiana. She was designed as an AHTS, or anchor-handling tug supply vessel.

SAFETY TIP



Like most artificial reefs, *Pete Tide II* was thoroughly prepped before sinking, which involved the removal of objects that could pose a danger to recreational SCUBA divers, such as electrical wiring, which represents an entanglement risk, and doors and porthole covers, which could close and trap a diver inside a room. Despite this preparation work, wrecks can still be potentially dangerous to explore. As they age, wrecks naturally start to collapse, producing sharp edges

and loose elements. Artificial reefs are also popular for fishing and, as a result, can become covered in monofilament line and torn sections of netting that can be particularly hard for divers to see. Divers should proceed with extreme caution when exploring a shipwreck. Do not take unnecessary risks, always dive with a buddy, and consider bringing a dive knife or other cutting device in case of entanglement. Professional training can vastly improve safety, so consider taking a wreck specialty course with a local dive operator.

These sturdy boats were designed to tow large oil rigs out to their drilling locations in the Gulf, as well as providing other supply services.

She was deployed as an artificial reef in May 1993 and is one of the original members of the Florida Panhandle Shipwreck Trail. The trail was established in 2012 and helped popularize the many artificial reefs available for divers in the region.

Pete Tide II is in excellent shape despite her many years underwater. She is well colonized with soft corals, sponges and algae, and hosts a variety of reef fish. She sits upright on a sandy bottom at a depth of 102 feet (31 meters), with the top of her wheelhouse reaching 62 feet (19 meters). She offers divers three deck levels to explore as well as three large holds that sit open and accessible in the main deck area toward the stern. There are penetration opportunities for those divers with experience in overhead environments, while the open wheelhouse is accessible to those with good buoyancy control and adequate trim.

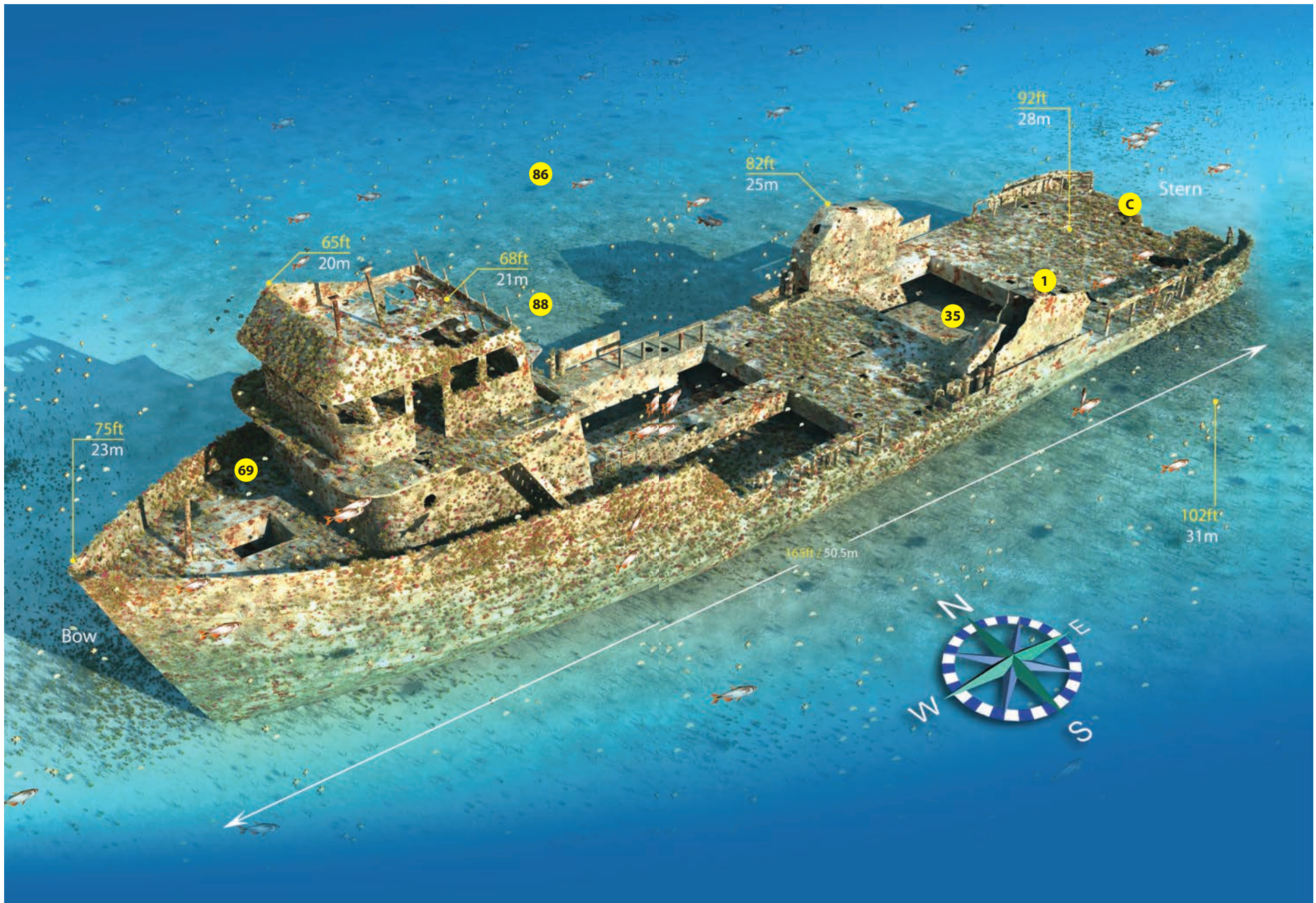
Visitors to this site are almost guaranteed to see schools of Atlantic spadefish swarming around the wreck. Large snapper, including red and lane snapper, are also common, as are barracuda and king mackerel in the waters above the wreck. Looking more closely at the wreck itself, divers are likely to see angelfish, particularly blue angelfish, as well as cocoa damselfish, sharpnose puffers and even spotfin butterflyfish.

Route

Divers commonly start their exploration in the holds or the outer hull of the wreck. After circling the artificial reef, there is plenty to check out along the main deck and in the three levels of structure at the bow. Those divers with penetration experience can make their way into the superstructure at either the main deck level or the level of the first deck. The wheelhouse itself is relatively open and provides swim-through opportunities for divers. However, there are wires hanging down from the ceiling and other entanglement risks, so divers should proceed with caution.

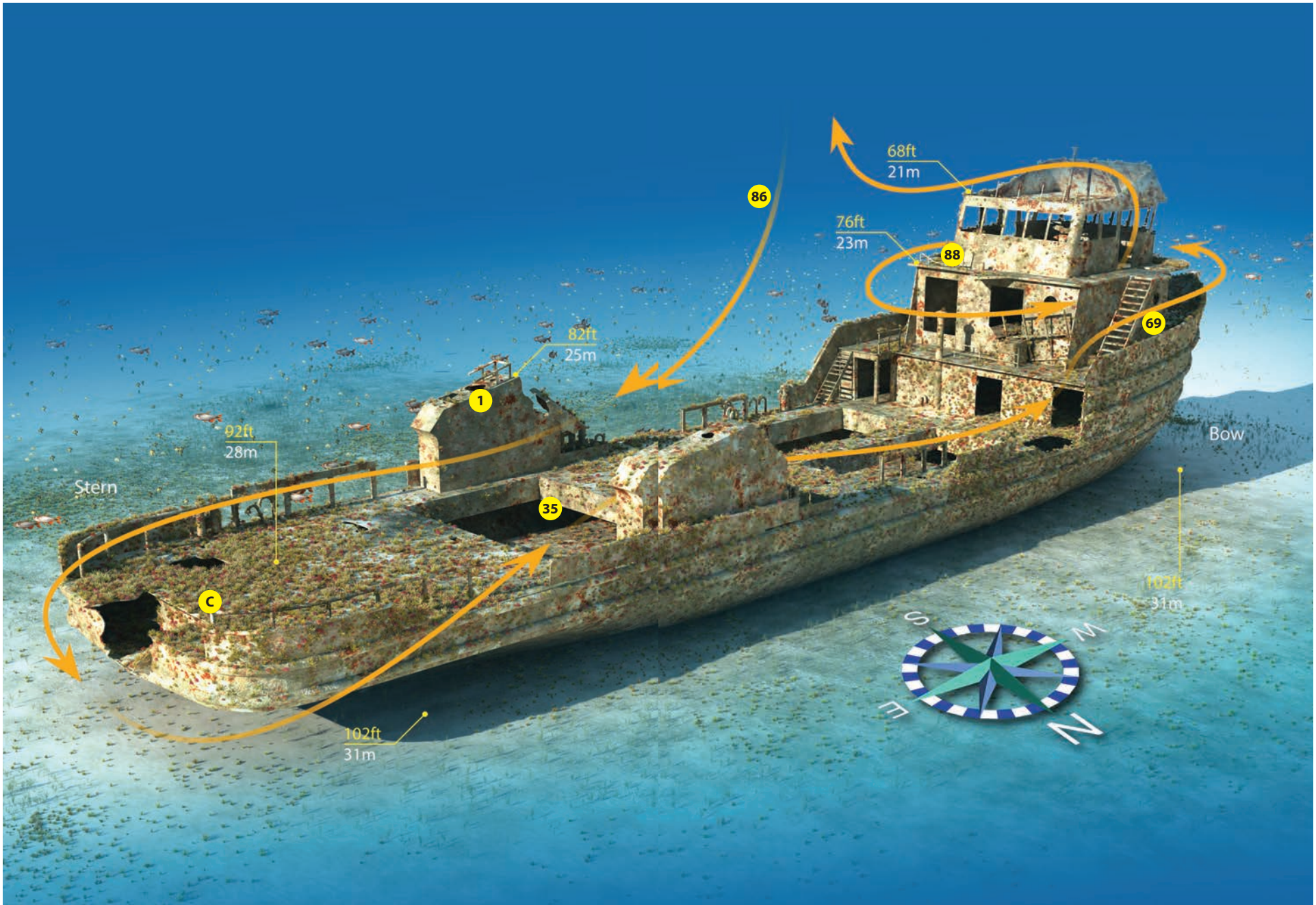


A diver swims across a wreck as a school of fish passes by.



Name: *Pete Tide II*
Type: Oilfield tug
Previous names: n/a
Length: 165ft (50.5m)
Tonnage: 278grt

Construction: Halter Marine, Rockport, LA, 1973
Last owner: Tidewater Resources, Inc
Sunk: May 23, 1993



Other species commonly found at this site:

- J
- 2
- 3
- 9
- 12
- 13
- 19
- 32
- 38
- 40
- 45
- 54
- 56
- 87

Difficulty	●●●○
Current	●●●○
Depth	●●●○
Reef	★☆☆
Fauna	★★★



Level Advanced

Location

Destin, Okaloosa County
GPS 30°15.839'N, 86°23.104'W

Getting there

Janet is a dive site that is relatively close to shore compared to some of the deeper artificial reefs and she sits just 500 feet (180 meters) southeast of nearby *Eglin LCM-8*. The site is accessible with a short boat ride out of Destin East Pass. There are no surface mooring buoys at this site, so operators typically tie in to the wreck or anchor in the sand nearby.

Access

This site is most accessible to advanced divers with experience at depth. Those with the qualifications to explore overhead environments may get more out of the site. The seabed is 97 feet (29.5 meters) deep, although the top of the wreck reaches a depth of 80 feet (24.5 meters), which means divers can keep to a slightly shallower profile if they wish. The site is best reached via one of the dive shops operating out of Destin East Pass.

Description

Janet was an 85-foot-long (30-meter) tugboat deployed as an artificial reef on October 1, 1997. Very little is known about the history of this vessel before she was scuttled. She was originally a standard model of tugboat that resembles many other artificial reefs in the region. These tugboats make excellent artificial reefs as they are often built with thick steel hulls necessary for their tough line of work. The thickness helps the steel survive well in the harsh saltwater environment.

Janet is in excellent condition given her time spent underwater. She sits upright on a sandy seabed, and her two-tiered superstructure reaches 17 feet (5 meters) above the sand. Her intact superstructure offers divers plenty of opportunities for limited penetration through both her wheelhouse and her main

Access  about 11mi (17.5km) southeast of Destin East Pass

superstructure level. The top of the main structure is open, allowing for easier exploration by divers with wreck experience. Slight corrosion of some walls and doorways is visible in the aft section of the wreck on the port side.

Along with the normal complement of schooling tomatoes and vermilion snapper, divers are also likely to spot blue angelfish, cobia and grouper swimming around the wreck. Stingrays and toadfish are often found out in the sand that

A diver is surrounded by schooling fish off *Janet's* stern.



RELAX & RECHARGE



The Destin family has a long and rich history in the Panhandle. Dewey Destin's great, great grandfather, Leonard Destin, founded the town in 1835. For over a century, he, his children and grandchildren helped build a thriving fishing industry on the Emerald Coast. Seafood stores grew from this industry and ultimately **Dewey Destin's Seafood Restaurants**, which are located in both Destin (at 9 Calhoun Avenue and 202 Harbor Boulevard) and nearby Navarre

(8673 Navarre Parkway). They specialize in fast-casual dining – you order at a window and then relax outside with a drink while your fresh seafood is prepared. The restaurants serve multiple fried and grilled staples, including shrimp, mahi mahi, scallops, tuna, oysters and catfish. There are also rotating catch-of-the-day options that may include swordfish, grouper, triggerfish, tripletail and cobia among others. These are served as bronzed, blackened or in a honey teriyaki style. Visit: Destinseafood.com

surrounds the wreck, while barracuda tend to hang out above the wheelhouse. They often greet divers as they descend onto the wreck at the start of their dive, or see them off as they depart the wreck.

Route

Due to the depth of the seabed here, divers will not have a lot of bottom time if they spend too

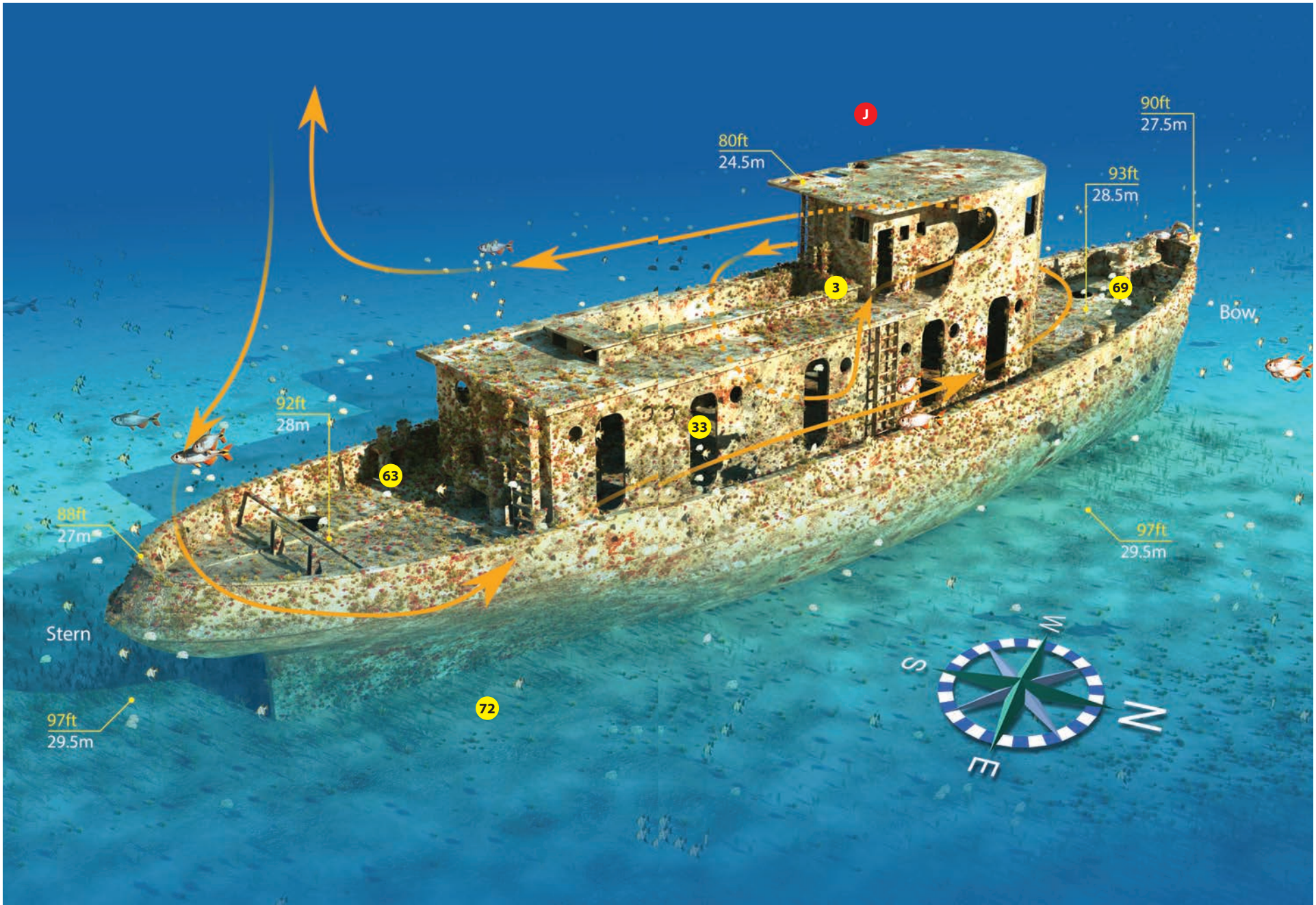
much time investigating the hull. Most routes circle the wreck at the main deck level before exploring the main structure and wheelhouse. The openings cut into this wreck allow divers with penetration experience to enter and exit in numerous places. The wheelhouse is relatively small, but has space for divers with good buoyancy control to enter and look through the windows toward the bow. With the



highest point of the wreck reaching just 80 feet (24.5 meters), divers will want to manager their limited bottom time wisely, as there is plenty to explore on this wreck.

Name: Janet
Type: Tugboat
Previous names: n/a
Length: 85ft (30m)
Tonnage: n/a
Construction: n/a

Last owner: n/a
Sunk: October 1, 1997



Other species commonly found at this site:

- 2
- 5
- 6
- 11
- 38
- 48
- 49
- 56
- 61
- 79
- 81
- 83
- 86
- 88

Difficulty ○○○○
 Current ○○○○
 Depth ○○○○
 Reef ★★★★★
 Fauna ★★★★★



Access 🚗 about 39 mins from downtown
 Panama City
 🏊 about 7 mins from shore



Level Open Water



Location

Santa Rosa Beach, Walton County
 GPS 30°19.338'N, 86°09.491'W

Getting there

From Panama City, head west on US-98. After crossing the Hathaway Bridge to Panama City Beach, continue on US-98 for 28.3 miles (45.4 kilometers) until the intersection with County Road 283 South. Turn left and drive 1.7 miles (2.5 kilometers) south to the intersection with East County Highway 30A. Turn left and drive 0.6 miles (1 kilometer) east along 30A before turning right into Grayton Beach State Park. There is a fee to enter the park. After the fee station, follow the park's main road for 0.6 miles (1 kilometers) south toward the ocean. After reaching the beach, the road makes a sharp left turn and ends at a large parking lot where there is ample parking. The park's official address is 357 Main Park Road, Santa Rosa Beach, Florida, 32459.

Access

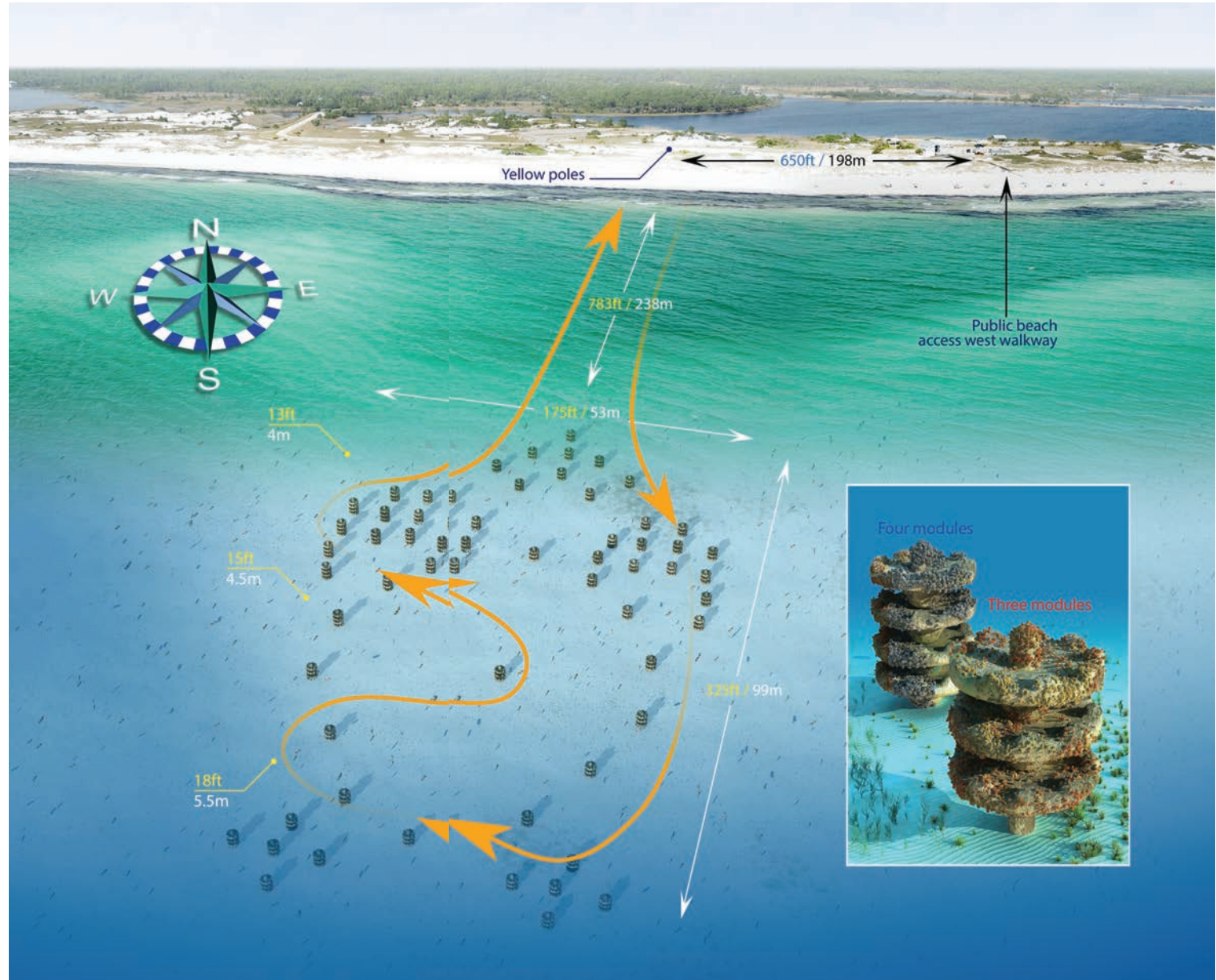
There are restroom facilities adjacent to the parking lot, and a boardwalk that snakes its way through the sand dunes to the beach. The reef modules are located just over 650 feet (198 meters) west of the beach access boardwalk. Tall yellow poles anchored in the sand mark the location of the reef and act as navigational aids for divers and snorkelers as they make their way out to the site. The reef modules themselves are located nearly 800 feet (240 meters) from the beach, and there are no buoys in the water to mark the site. The surf can be high at times, so divers and snorkelers should be careful when entering and exiting the water with their gear. A diver down flag is required

by law for divers and snorkelers while in the water.

Description

The reef complex features 58 reef modules placed in the shape of a sea turtle. It was the first of the four Walton snorkel reefs to be installed, taking shape in 2015. The shallowest modules are anchored at a depth of around 13 feet (4 meters) on the sandy seabed, while the

deeper ones bottom out at closer to 18 feet (5.5 meters). All modules are at least 6 feet (2 meters) below the surface of the water with the deepest modules reaching a depth of 12 feet (3.5 meters). Divers and snorkelers are likely to see damselfish, blennies, sea bass, snapper, triggerfish and grouper here, along with the occasional octopus and sea turtle. Stingrays and flounder are often resting on the sand near the modules.



Difficulty ○○○○
 Current ○○○○
 Depth ○○○○
 Reef ★★★★★
 Fauna ★★★★★



Access 🚤 about 6mi (10km) south
of St. Andrews Pass



Level Open Water

Location

Panama City, Bay County
 GPS 30°01.938'N, 85°42.516'W

Getting there

Strength is one of the many artificial reefs deployed in a group that provides nearshore dive sites that are readily accessible from the St. Andrews Pass. There are no surface mooring buoys at this site, so operators typically tie in to the detached bow or anchor in the sand nearby.

Access

The wreck is accessible to most divers due to its relative shallowness and its open nature – the seafloor ranges from 70 feet (21.5 meters) to just 76 feet (23 meters) in depth. The wreck itself sits in a slight hollow in the seafloor, which consists of fine sediments that can influence visibility at times. Depending on currents and ocean conditions, visibility can be very low at the base of the wreck and near the seafloor, while it usually remains decent on the main deck and above. The site is best reached via one of the dive shops operating out of Panama City and Panama City Beach.

Description

Strength was originally a 185-foot (56.5-meter) Admirable-class U.S. Navy minesweeper with hull classification AM-309. Built in 1944 for the U.S. Navy, she was launched in Seattle, Washington, and after a brief training exercise went directly to the Pacific to help the Allied war effort. She played a key role in clearing mines ahead of the Allied beach landings on multiple Pacific islands under Japanese occupation, including Iwo Jima and Okinawa. She was attacked by Japanese planes during her efforts and even torpedoed by a submarine. She survived the war and earned three battle stars for her service. After the war, she was brought back to Texas and placed in reserve, where she sat in storage for over 20 years.

In 1967, she was removed from the mothball fleet for use in training exercises by Navy salvage divers based in Washington, D.C. and then in Panama City after that. She was scuttled and resurfaced multiple times before being sent to the bottom for the last time in 1987 as an artificial reef.

Although she originally settled on her side, hurricane Opal pushed her upright in 1995. Today, she remains largely upright, but her decades spent underwater have led to the separation of the bow section from the main structure of the ship, which rests on its port side. Her superstructure has largely collapsed as well, with pieces still visible just off the port side.

Despite her deteriorating physical condition, *Strength* provides divers with plenty to explore and remains a favorite among locals and visitors. There are swim-throughs beneath sections of the upper structure that still stand upright on the main deck, although hanging wires and debris create entanglement risks here. The main deck has subsided, which has limited penetration opportunities into the hold of the wreck, but there are still plenty of nooks and crannies to explore.

Divers are likely to encounter bait balls on this wreck, which can be dense enough to completely obscure one's view at times. Jacks and snapper are often plentiful above the wreck, likely attracted by the bait balls. Damselfish and angelfish are often seen on the wreck itself, while gag grouper can be found hiding in the nooks and crannies. Schools of Atlantic spadefish are often in the water column above the wreck.

Route

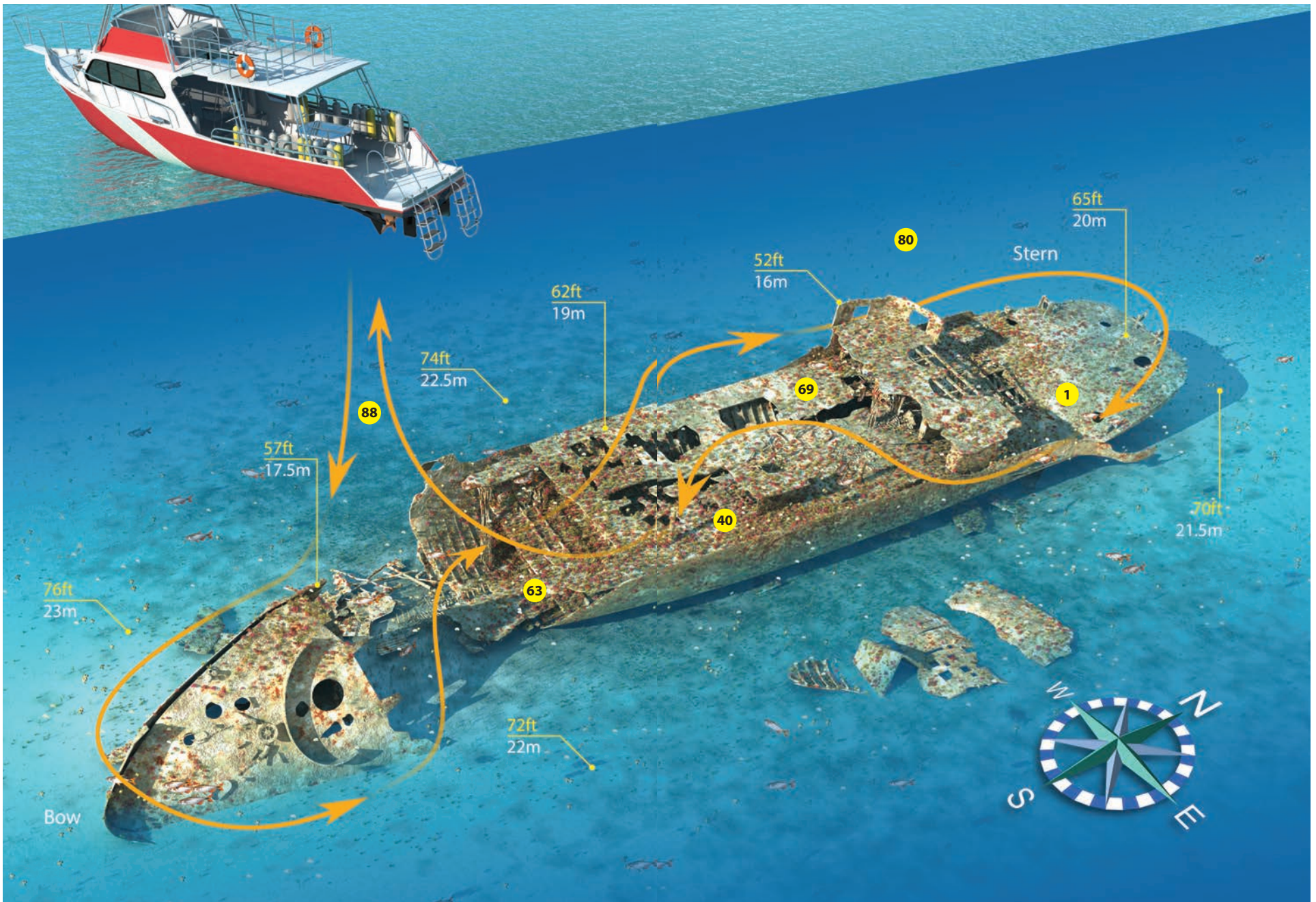
The shallowness of this site means there is plenty of bottom time for divers to explore the entire wreck, including the detached bow section and the larger stern section. The wreck no longer offers much profile, as it tops out at just 52 feet (16 meters), but there are still enough holes, overhangs and recesses on this wreck to make for an entertaining dive, particularly for divers under training.



As wrecks degrade over time, their interiors often develop entanglement risks and require caution when exploring.

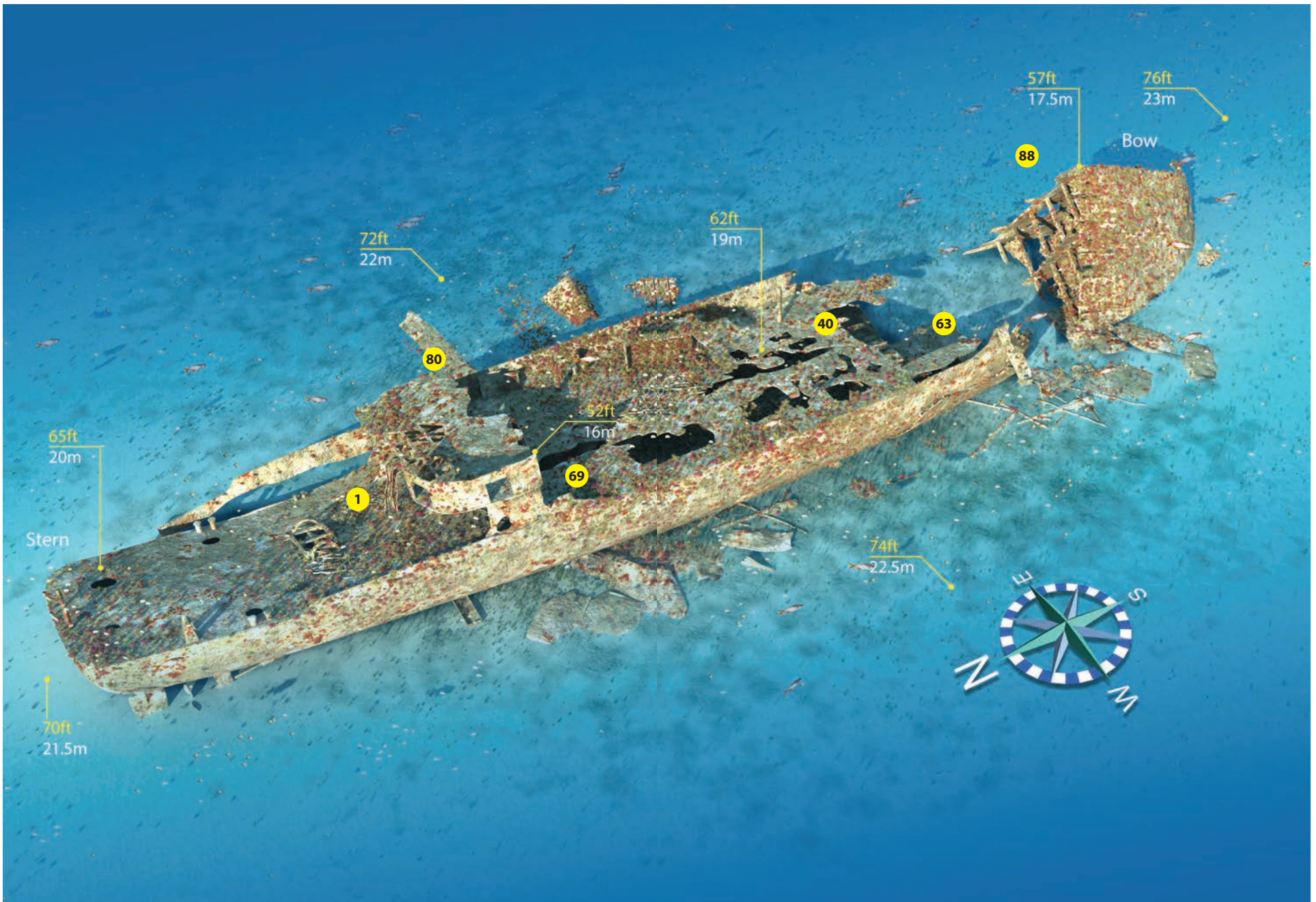
One potential route is for divers to drop down onto the bow section, circling it first before continuing on to explore the rest of the wreck. The debris-filled space between the bow and stern sections is relatively sheltered, and provides ample places for reef creatures to hide, although no real opportunities for

penetration remain. From there, divers can opt to fully circle the stern, before focusing on the sections of superstructure that remain standing on the main deck. Divers should watch out for potential entanglements in the narrow swim-throughs in this area. Most divers finish up their dive exploring the main deck.

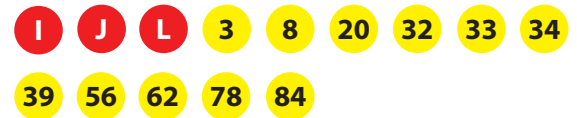


Name: *Strength*
Type: Minesweeper
Previous names: n/a
Length: 185ft (56.5m)
Tonnage: 945grt
Construction: Associated Shipbuilders,

Last owner: Seattle, WA, 1944
Sunk: U.S. Navy
 May 15, 1987



Other species commonly found at this site:





RAINBOW RUNNER ELAGATIS BIPINNULATA

81

Maximum size: 6ft (1.8m), 102lbs (56kg)

Longevity: Up to 6 years

Typical depth: 6–33ft (2–10m)

Behavior: Rainbow runners are one of the larger members of the jack family, and they are found near the surface of the water over reefs. Though they can get quite large, individuals measuring 2–3ft (60–90cm) are more common. Rainbow runners can form large schools, where they feed on invertebrates and small fish.

Predators: Sharks and tuna

BLUE RUNNER CARANX CRYSOS

82

Maximum size: 27.5in (70cm)

Longevity: Up to 11 years

Typical depth: 0–330ft (0–100m)

Behavior: Blue runners are a pelagic species that tend to form schools near shore. They are often associated with sargassum mats as juveniles, using the habitat for both protection and to forage on invertebrates. Adults forage on other fish, along with shrimp and invertebrates, and are not generally associated with reefs.

Predators: Mahi mahi, sailfish, tuna, marlin and barracuda



LITTLE TUNNY EUTHYNNUS ALLETTERATUS

83

Maximum size: 4ft (1.2m), 36.5lbs (16.5kg)

Longevity: 8 to 10 years

Typical depth: 20–200ft (6–61m)

Behavior: Little tunny spend most of their time in open water but are often found close to shore and in areas with stronger currents. They opportunistically feed on anything they can find, including fish, crustaceans and squid, sometimes creating a frenzy at the surface as they hunt a bait ball of herring or anchovies.

Predators: Sharks, mackerel and other large, pelagic fish



LOOKDOWN SELENE VOMER

84

Maximum size: 19in (48cm)

Longevity: Up to 20 years in captivity

Typical depth: 2–30ft (0.5–9m)

Behavior: Lookdowns frequent shallow coastal waters, including estuaries, from Maine to Brazil. They prey on small crabs, shrimp and fish. Their sloped, blunt forehead makes it easier to forage along the bottom, and makes it appear as if they are “looking down” as they hunt, hence the name.

Predators: Mackerel and other large fish



SPANISH MACKEREL SCOMBEROMORUS MACULATUS

85

Maximum size: 3ft (91cm), 13lbs (6kg)

Longevity: 5 years

Typical depth: 33–115ft (10–35m)

Behavior: Spanish mackerel form large schools as they migrate throughout most of the Western Atlantic and Gulf of Mexico. A popular sportfish and commercial fishery, they spend most of their time in open water, but are often found above coral reefs and wrecks. They prey on small fish, such as sardines and herring, and often corner large bait balls of prey near the surface.

Predators: Pelagic sharks, other mackerel and cobia



KING MACKEREL SCOMBEROMORUS CAVALLA

86

Maximum size: 6ft (184cm), 100lbs (45kg)

Longevity: 14 years

Typical depth: 50–150ft (15–46m)

Behavior: King mackerel are a popular sportfish found throughout the Western Atlantic and the Caribbean. They spend most of their time in open water but are often found above coral reefs and wrecks. They are usually solitary, and typically seen by divers during safety stops as they can become curious and draw close.

Predators: Pelagic sharks, little tunny and dolphins.



COBIA RACHYCENTRON CANADUM

87

Maximum size: 6.5ft (2m), 150lbs (68kg)

Longevity: 15 years

Typical depth: 1–60ft (0–18.5m)

Behavior: Cobia are found worldwide in temperate and tropical waters. Their habitat includes shallow estuaries and inshore reefs, as well as the offshore pelagic zone of the ocean, typically around drifting or stationary objects such as a vessel or oil rig. They are a popular gamefish, often caught using handlines or by trolling. They eat small grouper and other fish, as well as crabs and squid.

Predators: Sharks and mahi-mahi



ATLANTIC SPADEFISH CHAETODIPTERUS FABER

88

Maximum size: 35in (90cm)

Longevity: Up to 20 years

Typical depth: 10–115ft (3–35m)

Behavior: Atlantic spadefish are often found in schools of up to 500 individuals, swimming above reefs and shipwrecks. They feed during the day on plankton and benthic invertebrates, such as worms, crustaceans and molluscs. To hide from predators, juveniles often drift on their side to mimic debris.

Predators: Grouper and sharks





CARIBBEAN REEF OCTOPUS OCTOPUS BRIAREUS

89

Maximum size: 39in (1m) with arms spread, 3 (lbs) (1.5kg)
Longevity: Less than 2 years
Typical depth: 13–82ft (4–25m)
Behavior: Caribbean reef octopuses like to hide in reef caves and crevices during the day. They are masters of camouflage and incredibly hard to spot, since they can change their color, texture and shape. They are most active at night, hunting for crustaceans, clams, snails and small fish.

Predators: Grouper, snapper, nurse sharks and moray eels

SLIPPER LOBSTER SCYLLARIDAE SPECIES

90

Maximum size: Up to 20 in (50cm)
Longevity: Possibly 10 years
Typical depth: 3–440ft (1–135m)
Behavior: Slipper lobsters include around 90 species in total that are found in warm waters throughout the world. They are not true lobsters, as they lack claws. They are closely related to spiny lobsters, but have flat plate-like antennae in the place of the long, thick spiny antennae of their cousins. Slipper lobsters tend to be slow-moving and nocturnal, feeding primarily on small crustaceans, detritus and carrion.

Predators: Grouper, triggerfish and other predatory fish

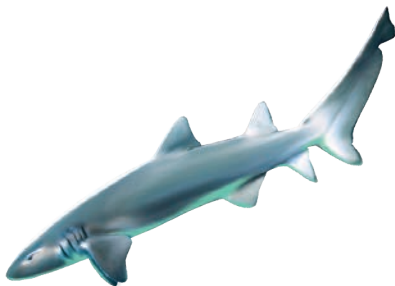


NURSE SHARK INGLYMOSTOMA CIRRATUM

91

Maximum size: 14ft (4.3m), 242lbs (110kg)
Longevity: Up to 25 years
Typical depth: 0–430ft (0–130 m)
Behavior: Nurse sharks are large nocturnal reef predators. At night, they search for hard-shelled prey, such as lobsters, crabs and conch, which they consume with their specially designed jaws. During the day, they are often found resting in caves or beneath coral overhangs.

Predators: Larger shark species

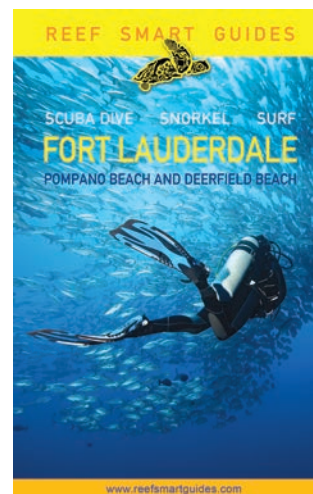
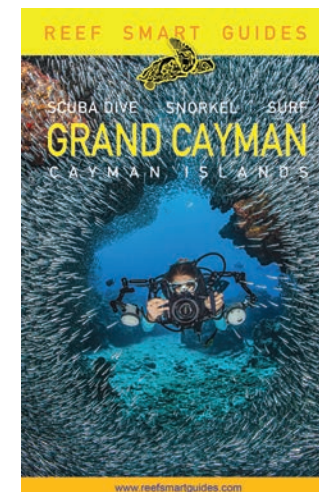
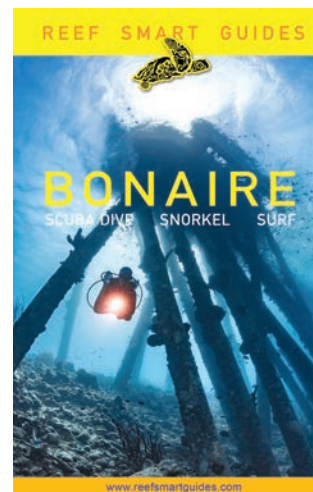
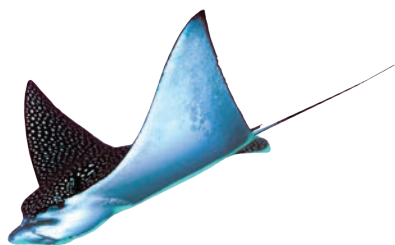


SPOTTED EAGLE RAY AETOBATUS NARINARI

92

Maximum size: 10ft (3m) disc width, 500lb (230kg)
Longevity: Up to 20 years
Typical depth: 3–260ft (1–80m)
Behavior: Spotted eagle rays are carnivores that specialize in eating hard-shelled prey such as conch, clams, crabs and lobsters. They sometimes eat octopuses and fish as well, and are often found over sand habitat. They have electro-receptors in their snout to help search for buried prey.

Predators: Tiger, bull, lemon and hammerhead sharks



Stay tuned for new titles coming soon, including guidebooks for the **Florida Keys** and for the **Cayman Islands: Cayman Brac and Little Cayman**.