

## PRE-TRIP SAFETY BRIEFING (BY OCEAN DISCOVERY STAFF)

Prior to each trip, an Ocean Discovery staff member will review the following with all drivers and passengers:

### DRIVING ROLES

- Drivers
  - Must be 25 years and older.
  - Have a valid license for vehicles.
- Car Captains
  - Ensure driving policies are followed.
  - In charge of all communication between vehicles using radio.
  - In charge of navigation.
  - Are alert and awake and support the driver as needed.
  - Send “We are in San Felipe!” text message to Safety Lead in San Diego and the Facility Manager in BLA.
    - Program their phone numbers into your phone.
    - Set your phone to send text messages once we cross the border.

### SAFETY EQUIPMENT

Each trip is equipped with the following Travel Safety Kit:

- First Aid Kit
- Roadside Kit with Triangles and Tire Pressure Gauge
- Fix a Flat
- Fire Extinguisher
- Shovel + Carpet
- Car Magnets
- Emergency Water (for trips in remote areas)
- Radios (for student caravans)
- Satellite Phone with Instructions (to be placed under passenger seat)
- Travel Safety Binder
  - Driving Directions (includes road signs, detailed instructions, and educational notes)
  - Emergency contacts and resources
  - Emergency protocols
  - Insurance information

All components should stay in the lead vehicle so that all travelers know where to find them, if needed.

### DRIVING IN MEXICO

While driving in Mexico, you will experience different signage and driving practices than in the US, below are some that you may encounter:

- Blinking traffic lights warn of a light change to Red.
- Common road signs:



Dangerous Curve



Dip



No Passing



Speed Bump



Stop

- Drivers in Mexico will frequently use their left hand turn signal to signal that you are clear to pass them (or that they are turning left).
- Be aware of vehicles with non-working brake lights or head lights.
- Military check points are common on highways. Always follow their instruction.
  - Turn down music.
  - Open windows.
  - Take off sunglasses. Smile.
  - Have 1 person answer their questions. It is okay to tell them if you don't speak Spanish.
  - Step out of vehicles as requested.
- When stopping along the way, don't drink the tap water and don't put toilet paper down the toilet.

#### *OCEAN DISCOVERY DRIVING IN MEXICO POLICIES & GUIDELINES*

While driving, safety is our priority. To that end, we use the following:

- Follow speed limits and exercise caution on all roads in Mexico.
- Caravans stay within visual proximity and radio contact. Communicate if vehicles need to adjust speed to stay together.
- Driving in the dark is prohibited.
- Headlights are always ON while driving.
- Vehicles are never left unattended or unsecured. Someone must remain with the vehicles at all stops.
- Drive toward the center line as there is frequently little to no shoulder or fallen rocks on the shoulder.
- Leave a safe driving distance between cars – at least 3 seconds. Note that vehicles are often loaded heavily with passengers and supplies and need longer breaking time.
- Only pass when the driver has a clear view of the road ahead and confirms no cars are visible in the oncoming traffic lane. Do not rely solely on other drivers signaling or radio communication.

#### *PREPARE TO LEAVE*

- 1) Confirm COVID-19 Pre-Trip Checklist is complete for all individuals.
- 2) For student trips, ensure all individuals have a facial covering to wear while in vehicles.
- 3) All adults show their passports to the pre-trip leader.
- 4) Review gas reimbursement/receipts process.
- 5) Communicate the caravan order. Those with experience traveling to BLA should be in the lead car.
- 6) Communicate the next stop - USA Gasoline in Calexico.
- 7) Pack Travel Safety Kits:
  - a. All Car Captains take a radio.
  - b. Place the satellite phone under front seat.
  - c. Have Travel Safety Binder accessible in front seat.
  - d. Remaining items must be accessible in lead vehicle (other passengers can assist with these).
- 8) Allow for a final bathroom break.
- 9) Ensure no supplies are left behind.

## DIRECTIONS FROM SAN DIEGO TO BAHÍA DE LOS ANGELES (VIA MEX-5)

### ROUTE OVERVIEW

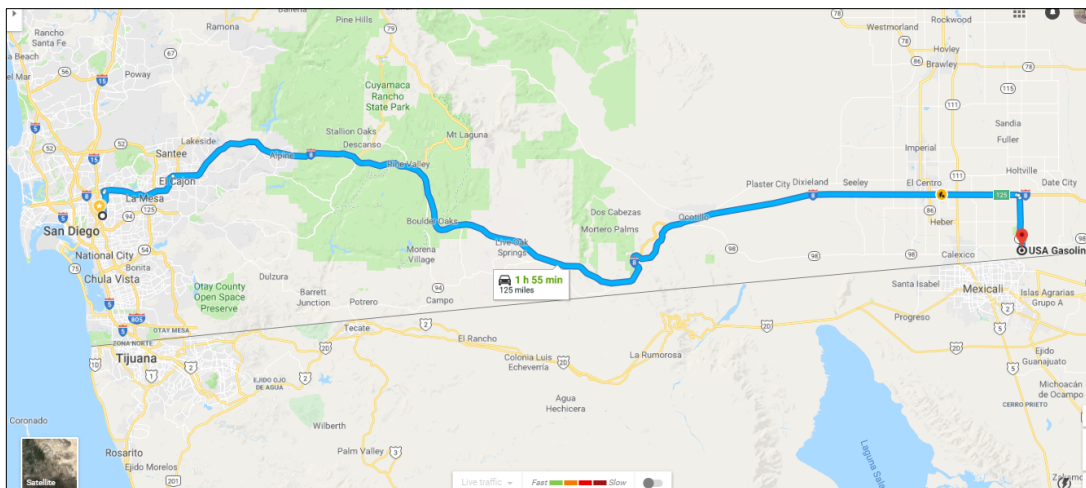
- Stop 1: USA Gasoline just north of border**
- Stop 2: Stop at border for visas**
- Stop 3: Pemex gas station just north of San Felipe**
- Stop 4: Rancho Grande Market by Gonzaga Bay**
- Stop 5: Ocean Discovery Staff House, Bahía de Los Angeles**

We encourage you to use Google Maps on your phone to supplement these directions. You should have phone service until San Felipe.

### TRAVEL TO STOP 1: USA GASOLINE JUST NORTH OF BORDER

**1791 Maggio Rd, Calexico, CA 92231**

**Approx. 2 hours and 125 miles**



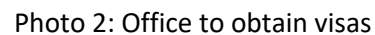
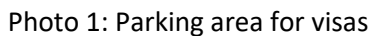
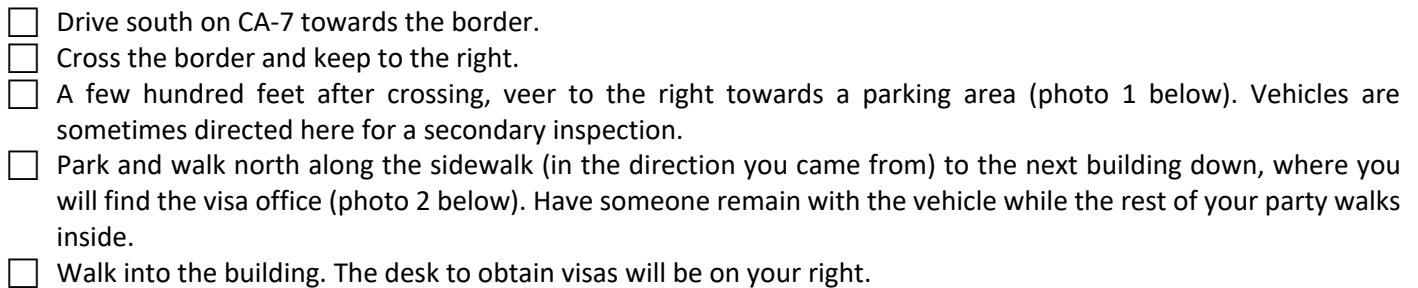
- ☐ Head east on Thorn St and turn right on 43<sup>rd</sup> St.
- ☐ Turn left onto Fairmount Ave and drive north.
- ☐ Follow signs for 1-8 East.
- ☐ Take 1-8 East to CA-7 South. Take exit 125 for State Route 7 S / Orchard Rd.
- ☐ After 5.8 miles, USA Gasoline will be on your left.
- ☐ Fill up gas tanks and use bathrooms at USA Gasoline.

### Description of this Section

This section is all on well-maintained US highways.

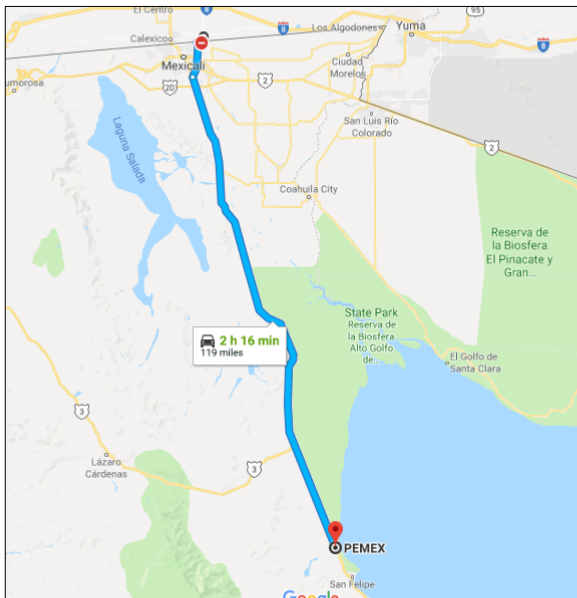
### Educational Notes About This Section

As you head south from Hwy 8 to the border, you will cross a deep canal. That is the All American Canal, an 80 mile long waterway that diverts water from the Colorado River to be used in the imperial counties. It is the largest irrigation canal in the world, and is also known as the most dangerous water body in the US, as many immigrants die in it each year trying to cross into the US.

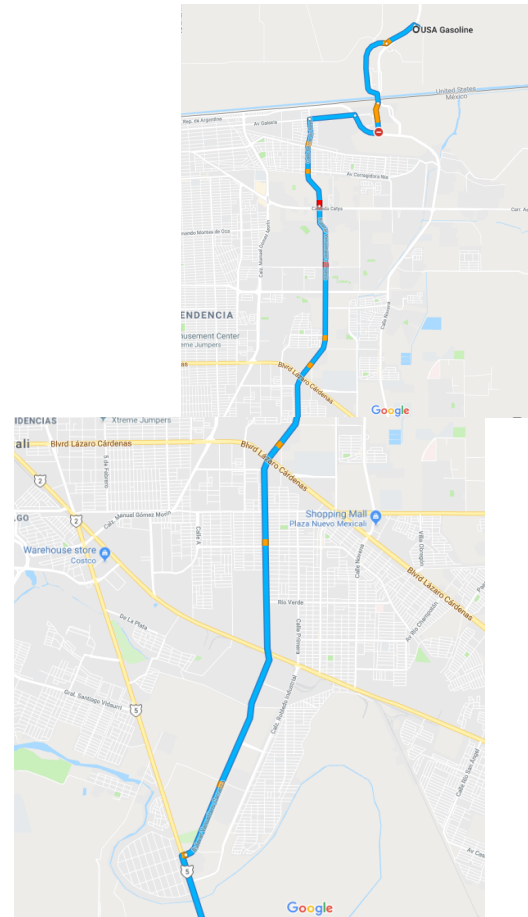


- All visitors to Mexico are required to obtain a visa. If you are staying for fewer than 7 days, you do not have to pay.



*TRAVEL TO STOP 3: PEMEX GAS STATION JUST NORTH OF SAN FELIPE***Approx. 2 hours and 119 miles**

Mexicali Detailed Map



- ☐ After crossing, turn right onto Calzada Abelardo L Rodriguez and continue for .4 miles.
- ☐ Turn left onto Av. Brasil and continue for .6 miles.
- ☐ Turn left onto Calle Barnardo Reyes and continue for 1.2 miles.
- ☐ Continue onto Bulevar Venustiana Carranza for 6.6 miles.
- ☐ Turn left onto MX-5 and continue on MX-5 south.
- ☐ PEMEX Gas Station will be on the right after KM marker 177. The PEMEX gas station is on the right, just past this billboard.
- ☐ Fill up gas tanks and use bathrooms.
- ☐ **Text Anne Correia at 619-980-9038 and Carla Camacho 619-300-8735 to let them know you are in San Felipe.**

**Description of this Section**

- After passing through Mexicali, this section is along wide, straight highways in good condition.
- Due to the heat of the drive, it is generally more comfortable to eat lunch in the car if you have brought a lunch. We do not stop for lunch with students.
  - If not traveling with students, a nice lunch stop if you have brought a lunch is near KM marker 53 called "Las Cabanas." Turn left off the highway onto a dirt road. Continue a few hundred meters until you see a turnoff for "Las Cabanas" to the right. The fee is \$3 per person and there are nice shaded palapas along the river. The owner is named Valentin.

### Educational Notes About This Section

Mexicali began as an area largely as an agricultural center – being in the delta of the Colorado river created rich soils for growing crops. In recent years, however, industry has been making headway in the region, with “maquiladoras” becoming an important part of the economy. Maquiladoras are factories that import raw materials, then export the assembled/processed products. Lots of the products we use in the US are actually made right here, including items from Kellogg’s, Mitsubishi, Nestle, and LG.

KM 12 – plane crash? Well, sort of – this was part of a crash test that was performed in 2012. Scientists fitted a Boeing 727 with crash dummies, cameras, and other instrumentation, and then flew it into the ground in Laguna Salada. The plane actually took off with a small crew and a few passengers, all of whom parachuted out a few minutes before landing. The plane was then guided into the ground by remote control. The results of the analysis were unremarkable...in a nose-down crash, passengers at the front of the plane were more likely to be killed, while in a tail-first crash, the opposite might apply. Mexican government officials performed a cleanup of the crash site, and brought the rest of the plane to the spot that it now sits.

Campo Las Cabañas is situated next to a section of what is called the Rio Hardy. Rio Hardy was once (early 1800s) the main channel of the Colorado River, but by the late 1880s, the river mouth had migrated, leaving Rio Hardy as a smaller sub-channel. Currently, the source of water for Rio Hardy is residual agricultural waters, so water quality is low, with high levels of pesticides and fertilizers. Nonetheless, this region is within the northern Gulf’s Biosphere Reserve, and the wetlands here provide important ecosystem.

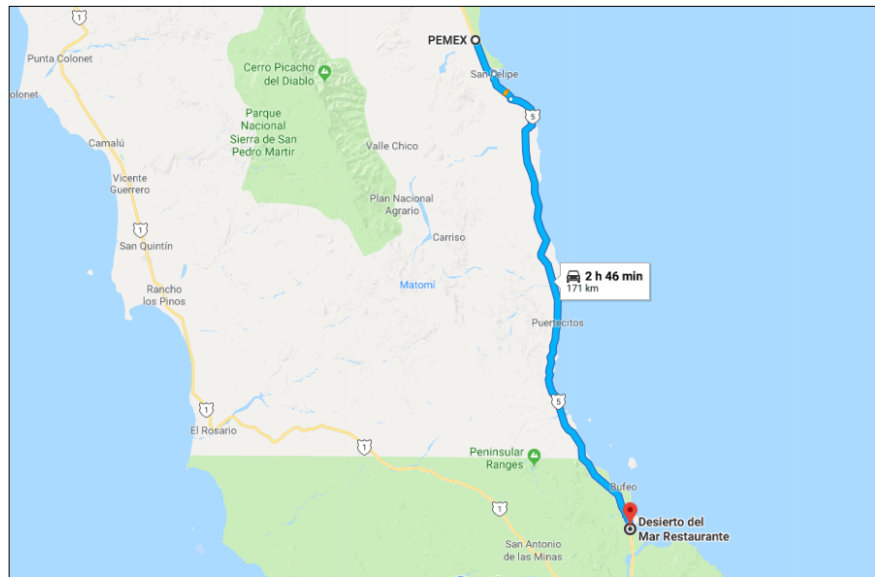
Less than a hundred years ago, Aldo Leopold canoed through this region, and referred to it as an almost impassable “jaguar-filled jungle”. You can see how different this area looks today. How did we get here? Well, that same year (1922), the US government estimated that 15 million acre feet (maf) flows through the Colorado River every year. For reference, that is the equivalent of the entire state of West Virginia being covered with water a foot deep. The government quite reasonably decided that they needed to allocate water to various states, and decided that the area above Lake Powell (more or less) should get 7.5 maf, and the southern region gets the other 7.5 maf. Then in 1948, it was decided that Mexico needed its share, so they allocated an additional 1.5maf to Mexico. Add to that the fact that Lake Powell loses almost 1 maf/yr due to seepage through the sediment, and you have the CO river OVER-allocated by 2.5maf, or ~15%. To make matters worse, we now know that we were in a very wet period when they estimated the flow of the CO river, so we almost never actually have 15maf to allocate in the first place. It is very complicated, but the bottom line is, essentially ZERO water from the CO river actually arrives in the Gulf these days. What does get there is water that has been run through agricultural fields and manufacturing plants.

Cerro Prieto. AT about KM 23, you can see Cerro Prieto on the east side of the highway. Cerro Prieto is a volcano that sits astride the geologic “spreading center”, the fault that formed the gulf of California. Beneath the ground here is a large, geo-thermal field, and that heat is used to generate power at the Cerro Prieto Geothermal Power Station.

KM 75. Look to the west, you’ll see the southern end of Laguna Salada, an old dry lake bed that is 10 meters below sea level. During times of heavy rain, this massive lake (37 miles long) can fill almost completely with water. Amazingly, the small canals by the roadside provide enough of a refuge that, when flooded, the lake fills with fishes, including carp, sailfin mollies, and mullet.

*TRAVEL TO STOP 4: RANCHO GRANDE MARKET / DESIERTO DEL MAR RESTAURANTE BY GONZAGA BAY*

**Approx. 2 hours and 106 miles**



- ☐ Continue south on MX-5 into San Felipe.
- ☐ After entering San Felipe, you will pass a Calimax Grocery store on the right side. 3 blocks after this store you will enter a large center roundabout. At the roundabout, take the first exit to follow signs for Puertecitos / MX-5.



- ☐ After 10.1 KM (6 miles south of San Felipe on MX-5), turn left to follow signs for Puertecitos / MX-5 towards the resorts named "La Joya del Mar" and "La Perla del Mar" to stay on MX-5.



- ☐ As you approach Gonzaga Bay, the Rancho Grande Market will be on your left and a PEMEX gas station will be on your right. Note that this is the **LAST** gas station on MX-5 until Bahia de Los Angeles. We recommend that you fill up with gas if you are at ½ tank or less.

### Description of this Section

Drive carefully and be alert for several large potholes. There are also many dips (or “Vados”) in the road, and several are poorly marked. You will need to significantly decrease your speed as you travel through these dips.

After this section, you will notice the road improves and widens. Soon you will be treated to incredible views of the blue ocean and red cliffs. Along this stretch, be alert for large rocks that may have fallen from the cliffs onto the road.

As you approach Gonzaga Bay, you will see an obvious intersection with gas station on the left and market on the right. The market has clean bathrooms, snacks, cold beverages and shaded areas. This is our last bathroom stop (except for emergencies) before we arrive at Bahía de los Ángeles.

### Educational Notes About this Section

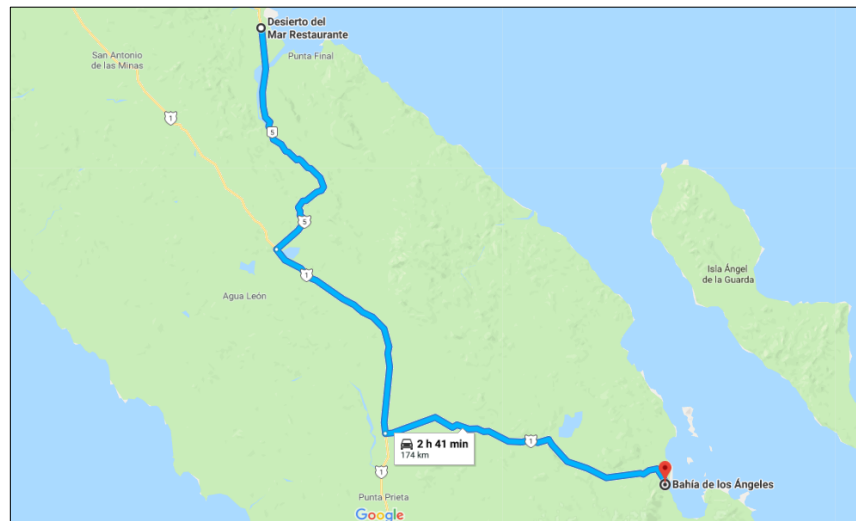
KM 74/75 – Puertecitos is a unique area. First, much of the surrounding area is fossiliferous Pliocene marine beds, so if you are looking for a 3-5 million year old clamshell, some of these outcrops might be just the place! Also, this region has substantial subsurface geothermal energy, creating hot springs in the intertidal!

Also, those islands you are seeing to the south are known as “La Encantadas”, and (from North to South) are El Huerfanito (the most isolated one and closest to shore), El Muerto, La Lobera, Isla Cholludo, and Isla San Luis (with another couple of small ones, hidden just to the east of San Luis and Cholludo). One story has it that these islands are called “enchanted” because they are made of rock that floats (pumice). You will note that some of the islands look almost snow-covered, due to the rich layers of bird guano covering them. In small amounts, guano is a wonderful fertilizer, but when too many birds nest and roost on an island, only the hardiest plants manage to survive.

Since some of these islands have almost no terrestrial plants, they also lack abundant terrestrial arthropods. For that reason, the lizards that live on these islands have evolved to live exclusively on intertidal isopods, and through time have evolved into three distinct species that occur only on these islands!

*TRAVEL TO STOP 5: OCEAN DISCOVERY IN BAHÍA DE LOS ANGELES – GLENDALE FIELD STATION*

**Approx. 2 hours 45 minutes and 108 miles**



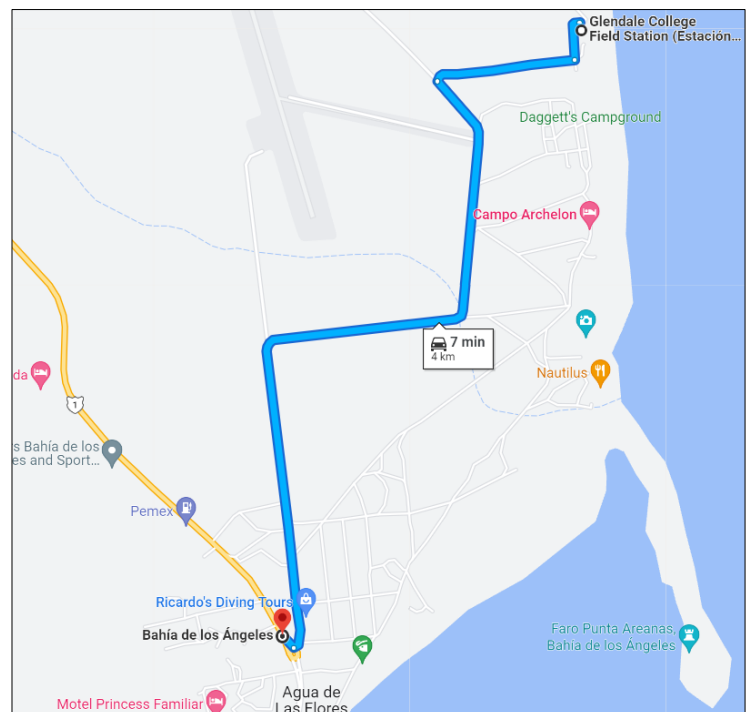
- ☐ Continue south on MX-5 as it cuts west across the peninsula.
- ☐ There is a bathroom at Coco's Corner, approximately 1 hour after Gonzaga Bay.
  - This is fine for small groups, but not ideal for large groups because of the small number of stalls.
  - This is the very last bathroom stop until Bahía de los Angeles.
- ☐ At the T, turn left onto MX-1 and continue for approx. 50 minutes / 50 KM.
- ☐ At Punta Prieta (KM 282), turn left toward Bahía de Los Angeles.
- ☐ Continue for approximately 50 minutes until you reach Bahía de Los Angeles.

When arriving in Bahía de los Angeles,

- ☐ At the traffic circle with the sailboat, go  $\frac{3}{4}$  of the way around onto the paved road toward La Gringa and Campo Archelon.
- ☐ Stay on the paved road as it takes a hard right and hard left turn. Pass Campo Archelon and Raquel and Larry's.
- ☐ Turn right on the dirt road when you see the sign for "Glendale Field Station". Look out for overhead powerlines going from the road to the bay which go along the driveway.
- ☐ Arrive at the Glendale Community College Field Station (it will be on the left)



Glendale Community College Field Station



Bahía de los Angeles to Field Station Detailed Map

**Educational Notes About This Section****On the road west to Bahía de los Angeles:**

Note that this area has lots of “Elephant Trees” – trees with twisted, thick trunks and limbs, often with flaking bark on them. These are actually three different species which all share the same common name – and one is even a different genus, meaning that while it looks similar, it is actually not very closely related!

The elephant trees will often have a couple of different types of parasites on them – one is called Dodder, or “witches’ hair”. It is an orange, threadlike plant that takes its energy from the trees it sits on. Another is called “Ball Moss”, which looks like big greenish=brown clumps of bird nest on Cardón and Elephant Trees...there is some debate about whether this is a true parasite, taking energy from the tree on which it sits, or if it just uses the tree as a place to hang on and get sunlight. Similar species are sold in the U.S. as “air plants”, since they do not need to be planted in soil. KM 33. This is the dry lake bed from which the town of Bahía de Los Angeles gets its water...wells pull very salty, mineralized water from below ground, and bring it to the town. This water is undrinkable without treatment, but is used for washing clothes, dishes, etc. This is a potential problem in the future for the town, though – over extraction of this water is not only bad for the environment, but will also leave the town with no source of water in the future. When in Bahía, please use water carefully and sparingly!



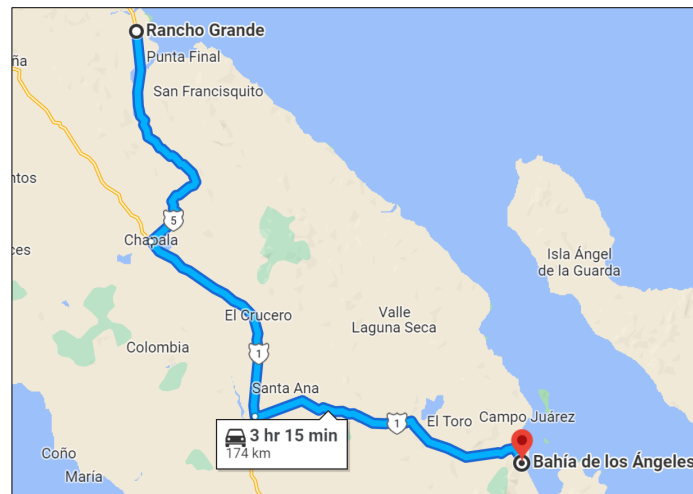
## DIRECTIONS FROM BAHÍA DE LOS ANGELES TO SAN DIEGO (VIA MEX 5)

### ROUTE OVERVIEW

- Stop 1: Rancho Grande Market by Gonzaga Bay**
- Stop 2: Pemex gas station just north of San Felipe**
- Border Crossing: Calexico**
- Stop 3: USA Gasoline just north of border**
- Stop 4: Ocean Discovery Living Lab, San Diego**

### TRAVEL TO STOP 1: RANCHO GRANDE MARKET BY GONZAGA BAY

**Approx. 2 hours 45 minutes and 108 miles**



- ☐ If you have not filled your tank, do so in Bahía de los Angeles at the PEMEX.
- ☐ Leave Bahía de los Angeles and drive toward Punta Prieta.
- ☐ Take right on Mex 1 towards San Quintin/Ensenada.
- ☐ Take turn right onto Mex 5 towards San Felipe/Puertecitos. This turn should be approx. 1.5 hours and 73 miles after leaving the field station.



- ☐ If needed, stop for bathrooms at Coco's Corner. It is 13 miles after the turnoff.
  - This is not a preferred stop but may be necessary due to the time since the last bathroom stop.
  - Bathrooms are outdoors in the middle of the dirt area.
  - There are many interesting art installations here and a guest book to sign.
- ☐ As you enter Gonzaga Bay, Mini Market Rancho Grande on the left has clean bathrooms, shade, and snacks/drinks.
- ☐ There is a Pemex gas station on the right if gas is needed.

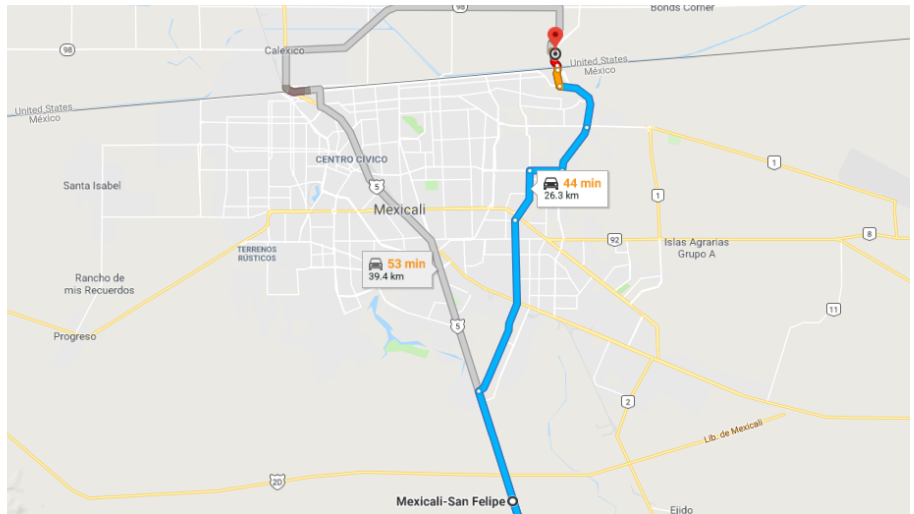
*TRAVEL TO STOP 2: PEMEX GAS STATION JUST NORTH OF SAN FELIPE*

**Approx. 2 hours and 106 miles**

- ☐ Continue north on MX-5.
- ☐ Drive through Puertecitos.
- ☐ As you approach San Felipe, the road comes to a “T”. Turn right to stay on MX-5 towards Mexicali.
- ☐ When with students, and not stopping for lunch, stop for bathrooms and gas at the same PEMEX as on the drive down. This is after KM 177 and will be on your left just north of San Felipe.
- ☐ If you wish to stop for lunch in San Felipe, when you approach the fork in the road marked by a bright yellow curb, stay to the left and follow signs for “Malecon”. This will take you to the beachfront restaurant strip where there are several good options for lunch.

*TRAVEL TO BORDER CROSSING: CALEXICO*

**Approx. 2 hours and 119 miles**



- ☐ Travel north on Mex 5. The road will be in good condition with wide shoulders.
- ☐ Google Maps on your phone may be helpful as you approach Mexicali.
- ☐ You will pass underneath Highway 20-D. Your next right turn will be 17.8 KM afterwards.
- ☐ At the sign indicating a right turn towards “Colonia Robledo,” turn right onto Bulevar Venustiana Carranza, just before a PEMEX gas station on the corner.



- ☐ Continue for 6.9 KM.
- ☐ Turn right onto Calz Independencia and continue for 1.2 KM.
- ☐ Turn left onto Calle Novena. At the next major intersection, as you approach Carr. Aeropuerto, there is a PEMEX Station on the right that you may use for a bathroom stop if needed before the border wait.
- ☐ As you approach the border, the first right turn is for trucks only. Stay in the right lane and continue to the second right turn towards the border.
- ☐ Follow signs for “Camiones / Autos.” Do not enter the “Linea Sentri” unless all passengers have Sentri cards.
- ☐ Keep to the right as you approach the border. The left lanes are “Ready Lanes” only.



*TRAVEL TO STOP 3: USA GASOLINE JUST NORTH OF BORDER*

**1791 Maggio Rd, Calexico, CA 92231**

**Approx. 5 minutes and 1.7 miles**

- ☐ After crossing border, continue north on CA-7.
- ☐ Fill up gas tanks and use bathrooms at USA Gasoline on your right.
- ☐ **Text Anne Correia at 619-980-9038 and Carla Camacho 619-300-8735 to let them know you have crossed the border and will arrive at the Living Lab in approx. 2 hours.**

*TRAVEL TO STOP 4: OCEAN DISCOVERY LIVING LAB, SAN DIEGO*

**4255 Thorn Street, San Diego, CA, 92015**

**Approx. 1 hours 50 minutes and 125 miles**

- ☐ Take CA-7 North to I-8 West and continue to Ocean Discovery Institute.