Central American Landscapes

This Chapter was edited by Coates and authored by David Rains Wallace

Central America occupies \_\_\_\_\_% of the world’s landmass yet contains \_\_\_\_\_\_% of the world’s species.

What two factors are cited as partial causes of this diversity?

The author states that one can in a few hours auto trip see which seven environments (make a list)

Make a list of the three major lowland regions, and be able to place them on a map.

Make a list of the three major highland regions, and be able to place them on a map.

Be able to place all of the Central American countries on a map. (found later in the chapter)

Even though the giant Belize Barrier Reef and nearby coastal areas are formed of limestone, the Maya Mountains are not. What are these mountains made of? Explain how this happened.

Explain what makes it possible for reef fish to appear in inland streams.

Karst topography is formed from limestone. As water dissolves limestone, a porous landscape, sometimes with elaborate caves and sinkholes (*cenotes* in Spanish) forms. View the following brief video, and know answers to the following questions drawn from it: <http://www.youtube.com/watch?v=IZKuA_QZnBg> (if the link dies, search the terms “cenotes planet earth bbc” and you should be able to get the footage.

1. “Fewer people have explored some of these grand caverns than have stepped on \_\_\_\_\_\_\_\_\_\_\_\_\_\_” (five words)
2. Viewed from an aircraft above, what do *cenotes* look like?
3. Describe the shape of the visible *cenotes* as observed in the NW part of the Yucatan Peninsula, Mexico.
4. What happened in the past that led to this remarkable pattern?
5. What was another major biological change that was caused by this event?
6. How long did it take for this group of *cenotes* to form after the event?

Optional: here is another short video of *cenote* exploration: <http://www.youtube.com/watch?v=pEdosFUgX0I>

What is a large mammal that is still found in significant numbers in the saltwater mangrove lagoons?

What tree dominates in the ridges between the freshwater inland lagoons, in the absence of fire supression?

With fire suppression, what trees are beginning to dominate in those same interior ridges?

In Belize, the trend in precipitation is generally up or down as one goes to the south? (this is usually the case overall in the Central American isthmus as well)

Where is the Peten, what is it composed of, and what is its general topography?

The now defunct Classic Maya civilization occupied what areas of Central America? How long did it last, and when did it end?

What is the available evidence that suggests that the demise of this civilization was at least in part environmentally related?

In what months is the rainy season in Belize and the Peten?

What caused Belize to move its capital inland from Belize City to Belmopan?

What part of Guatemala was glaciated in the more recent ice ages? What evidence is there of this? How many meters above sea level is this area?

Looking at Plates 13 and 14, what are the associations between altitude: and a) coffee, and b) bananas, sugar, cacao? In other words, which of these cash crops are grown in the lowlands, and which are grown at higher elevations?

What are the associations between what is happening in plates 15A, 15B, and 16A, with the health of fisheries. Think about earlier material in Coates and how this all connects. Be specific about the processes involved, and how coral reefs, sea grasses, and mangroves play roles.

On page 80, quite a bit of important climate details are laid out.

Pluvial on the Caribbean slopes (pluvial means very wet, almost every day)

The higher you go, the cooler the climate (no surprise here!)

In what season, dry or wet, is frost more likely in higher elevations?

Cloud forests are mostly on windward slopes (Caribbean facing slopes exposed to the NE trade winds). What is permanent in these forests? (besides vegetation)

At approximately what elevations are the cloud forests found? (read carefully)

The Crystalline Highlands have supported lower populations that the volcanic highlands to the \_\_\_\_\_\_\_. (choose east or west) List two reasons why?

Are all of Nicaragua and Honduras densely populated? Explain the geography in your answer.

List three major tourist attraction types, and their geography.

What must be meant by “living Maya culture”, as opposed to archeological sites?

From where do most of the small farmers come from that are ending up in the Caribbean lowlands.

What region is of greatest mining significance?

Where is the region that is referred to as a kind of “Central American Amazon”, and what are its two parts called?

Note that a savanna type vegetation is one that suggests drought tolerance – and typically has spaced trees rather than a more closed forest canopy such as is seen in rainforests. What are the two leading explanations for why savanna is found in Mosquitia Coast upland areas that have a climate that could support a more standard hardwood tree dominated rainforest?

What renders a large part of the Mosquitia inaccessible for a significant part of the year?

In what landform region is the largest freshwater body of water from the Great Lakes on North American to Lake Titicaca in the Andean Highlands of South America. How long is this landform region, and what is its maximum elevation?

How did sharks make it into these lakes from salt water?

The Nicaragua Depression has more verdant vegetation than the Mosquitia? What is a leading explanation for this?

What causes the deciduous forest to lose its leaves in the Guanacaste Province of Costa Rica and some parts of extreme western Nicaragua.

Why are the Pacific lowlands more suitable for human occupation than the Caribbean lowlands?

By the way, the editor didn’t catch an error on page 86. It says “Moisture laden offshore trade winds cool the Caribbean through the dry months”… It should say “onshore” rather than “offshore”. Believe me, having spent months in these regions back in the early 1990s, there is a BIG difference!

What landform feature clearly demarcates Northern Central American from Southern Central America? (if you somehow missed this earlier)

The chain of active and recently active volcanoes that stretches from Guatemala to Panama has how many total volcanoes? \_\_\_\_ How many active?-\_\_\_\_\_\_

How are nearby volcanoes a curse?

How are they a blessing?

Why does little colonial architecture remain in Central America?

What two characteristics of Guatemalan volcanoes set them apart from the volcanoes of the rest of Central America?

What made the Izalco volcano near San Salvador famous in 1770? (great story – a similar tale is told of the San Juan Parangaricutiro volcano of Mexico)

The volcanic islands of Lake Nicaragua are impressive. Go to Google Earth, and find the name of the amazing waterfall San Ramon in the Maderas Volcano (Volcan)

Using google earth, how many miles long and wide is Lake Nicaragua? (use the ruler tool at the top, clicking on one end and then clicking on the other)

What highland area of Costa Rica shows clear evidence of alpine glaciations?

What is the meaning of Paramo vegetation? Where else is it found in the world?

The elevations where Paramo vegetation is found seem to be lower than expected. What is a possible explanation for this?

Significant unassimilated indigenous groups still persist in what highland region of Costa Rica? A key reason why these cultures have survived there is that it remains isolated due to its ruggedness but even more importantly because it is non-volcanic and thus doesn't have the rich soils so good for coffee production that are found pretty much everywhere near volcanoes.

List and describe four larger “unifying” categories for Central America that the author lists beginning on page 95. I must say that the paragraph about the highlands above 1000m is so true - …"one of the healthiest and most pleasant on earth, a permanent springtime of fresh nights and balmy days"… It is no accident that there are tens of thousands of foreign residents living in and around San Jose Costa Rica. Other highland cities would also have more foreign expats., were it not for the civil unrest that is so endemic in other Central American countries.

Which of these has typically made civilization “rest uneasy”? To what degree do population densities corroborate this generalization?

Identify the three traits of North America listed by the author that can be seen in Central America, and identify where in Central America they are evident.