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### Global Forest Link Project: Torrey Pines State Natural Reserve

We visited the Torrey Pines State Natural Reserve on October 21st around 4:00. It was a beautiful 76 degrees outside as we started along the trail. The Torrey Pines Reserve stretches along 2,000 acres and is home to a wide variety of plants and animals. Before our visit, our group hypothesized that the Torrey Pines Reserve is in fairly good condition and that it is not currently experiencing tree cover loss, due to the state's environmental protection of the reserve. As we walked along the trails, we did not notice any tree cover loss and we became fairly positive that our hypothesis was correct. We were able to later confirm our hypothesis on the Global Forest Watch interactive map. The Global Forest Watch map supported our hypothesis that there was not a tree cover loss, and the map even showed that there was a tree cover gain in one area of Torrey Pines. But for the majority of the Torrey Pines Reserve, neither a net forest gain nor a net forest loss were shown on the map.

Torrey Pines State Natural Reserve is not experiencing deforestation because the reserve is protected by the state of California. While the scenery is beautiful, the ecosystem at the Torrey Pines State Natural Reserve is delicate. The climate is approximately semi-arid and plants grow gradually in this hot and dry environment. If a habitat is incinerated, it can take years for the environment to recover. Since human activity is so prevalent at Torrey Pines, humans can affect the reserve in both negative and positive ways. Since Torrey Pines is primarily used as a hiking area, there is a lot of foot traffic in the area, and many commercial areas surrounding.

Torrey Pines trees are being affected by lack of rainfall. The President of the Docents Society of Torrey Pines Natural Reserve notes, "We're having a bit of trouble with the lack of water". Many shrubs on the reserve have lost a significant amount of color due to the drought. Some plants can be dormant for several months, but come back to life in the Spring after rainfall. For example, cacti don't need large amounts of water to survive. However, for certain plants that need more water to survive, the drought is detrimental. The trees in the Torrey Pines Reserve have also been significantly affected by the Bark Beetle. Bark Beetles tunnel under the bark of trees and cause them to die. The drought has already weakened the trees and they are not strong enough to fight off the beetles. About 150 of the Reserve's 4,600 Torrey Pines have been affected. To help prevent trees from becoming infested, park officials have added more black funnel traps to capture the beetles. Park Ecologist Charlie Kerns says, "The non-toxic traps are designed to look like broken tree limbs and contain simulate beetle pheromones to attract the insect".

Sources:

[http://www.globalforestwatch.org/map/14/32.89/-117.22/ALL/grayscale/loss\\_forestgain?tab=analysis-tab&begin=2001-01-01&end=2015-01-01&threshold=30&dont\\_analyze=true](http://www.globalforestwatch.org/map/14/32.89/-117.22/ALL/grayscale/loss_forestgain?tab=analysis-tab&begin=2001-01-01&end=2015-01-01&threshold=30&dont_analyze=true)

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