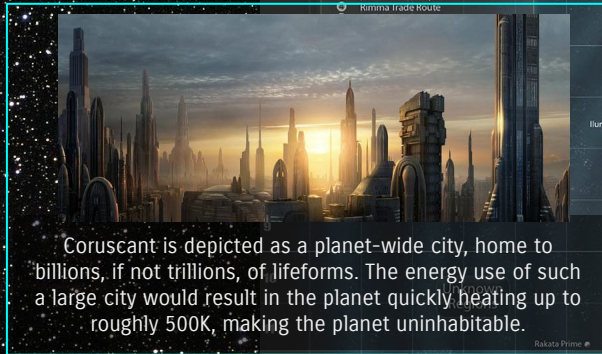


Habitability as seen in

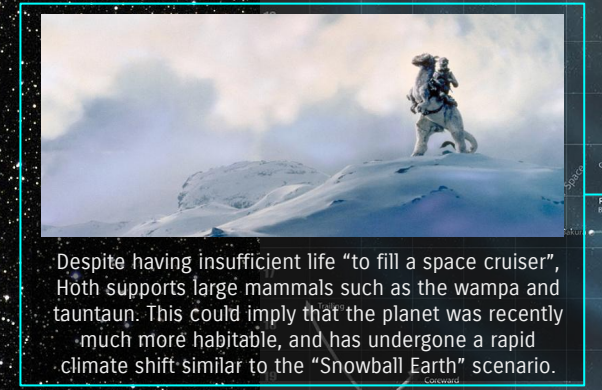
STAR WARS

The Star Wars films feature a menagerie of fantastical worlds, each with their own distinct climate, fauna, and flora. But are the planets we see really habitable? Here we discuss four of the planets shown and try to reconcile the on-screen evidence with current habitability research.

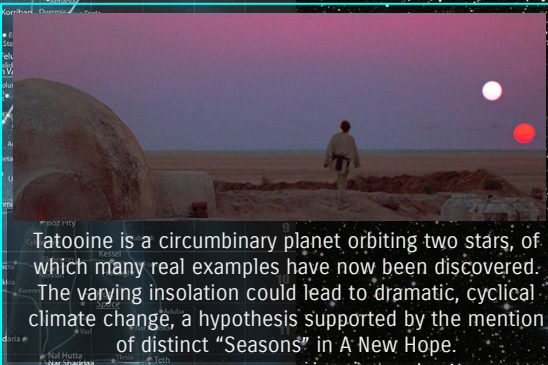
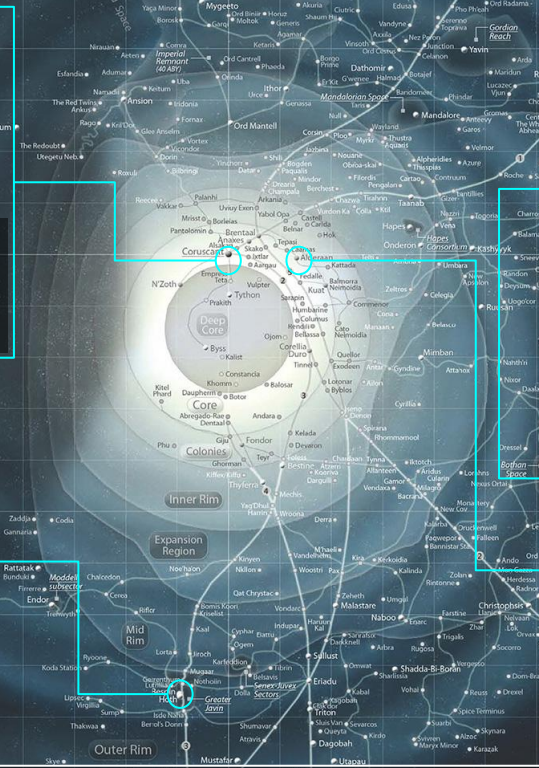
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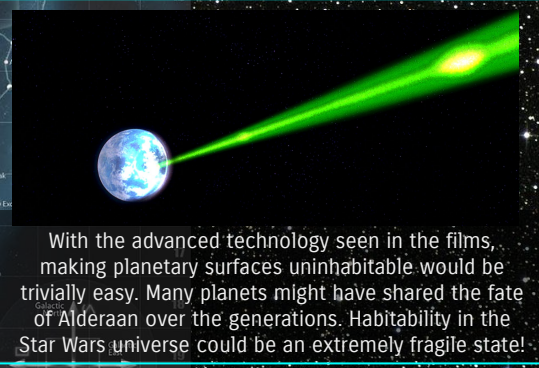
Coruscant is depicted as a planet-wide city, home to billions, if not trillions, of lifeforms. The energy use of such a large city would result in the planet quickly heating up to roughly 500K, making the planet uninhabitable.



Despite having insufficient life "to fill a space cruiser", Hoth supports large mammals such as the wampa and tauntaun. This could imply that the planet was recently much more habitable, and has undergone a rapid climate shift similar to the "Snowball Earth" scenario.



Tatooine is a circumbinary planet orbiting two stars, of which many real examples have now been discovered. The varying insolation could lead to dramatic, cyclical climate change, a hypothesis supported by the mention of distinct "Seasons" in A New Hope.



With the advanced technology seen in the films, making planetary surfaces uninhabitable would be trivially easy. Many planets might have shared the fate of Alderaan over the generations. Habitability in the Star Wars universe could be an extremely fragile state!

Detailed discussion of Coruscant's heat problem: <http://www.irregularwebcomic.net/417.html> BBC page about Snowball Earth: http://www.bbc.co.uk/science/earth/earth_timeline/snowball_earth
Habitability of circumbinary planets: <http://adsabs.harvard.edu/abs/2015ASPC...496..405M> Discussion of "easy" planet-killing weapons: http://www.projectrho.com/public_html/rocket/spacegunexotic.php
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