Asteroids

There is a lot of exciting stuff going on in the stars above us that make astronomy so much fun. The truth is the universe is a constantly changing, moving, some would say "living" thing because you just never know what you are going to see on any given night of stargazing.

But of the many celestial phenomenons, there is probably none as exciting as that time you see your first asteroid on the move in the heavens. To call asteroids the "rock stars" of astronomy is simultaneously a bad joke but an accurate depiction of how astronomy fans view them. Unlike suns, planets and moons, asteroids are on the move, ever changing and, if they appear in the night sky, exciting and dynamic.

Like rock stars, asteroids have been given their fair share of urban myth and lore. Many have attributed the extinction of the dinosaurs to the impact of a huge asteroid on the earth. This theory has some credibility and, if it is true, it evokes some pretty startling images and foreboding fears in the current reining species on earth, the human race.

The fact that asteroids are fast moving space debris only makes their movement and activity more interesting and exciting. Unlike a moon, planet or star, the odds that an asteroid could hit the earth are entirely reasonable and in fact, there are many documented cases of small asteroids making it through our atmosphere and leaving some pretty impressive craters in the earth's surface.

Popular culture has happily embraced the idea of an asteroid impact. The idea has spawned many a science fiction story adding the idea that alien life forms may ride asteroids to our world and start a "war of the worlds" situation. But by far, the most talked about concept that has captured the imagination and the fears of science fiction fans and the general public is of another asteroid hitting the earth that could wipe out life as allegedly happened to the dinosaurs. In fact, the movie "Armageddon" was based on this idea and the concept that somehow mankind could avert that catastrophe with technology.

But probably the best way to calm our fears and replace science fiction with science is with understanding and knowledge. The truth is, there has been a lot of study of asteroid activity and the serious scientific community has gained significant knowledge of these amazing celestial bodies. A number of probes to asteroids have been conducted which have given us a wealth of information about their composition and how we might predict their behavior.

We now know that the majority of asteroids we get to witness come from an

asteroid belt that exists between Mars and Jupiter. It is from this community of asteroids that many of the notable asteroids emerged. Scientists have gained significant knowledge about the composition of asteroids and separated them into classes including class S which comes of the part of the belt that is closest to Mars, classes C, D and V which are classified by composition and a class called “Centaurs” whose flight patterns take them closer to Jupiter and Uranus.

Some of the probes NASA has conducted on near flying asteroids have performed some pretty amazing studies of these eccentric celestial bodies. In 1994 the Galileo probe got within 1000 miles of the asteroid Ida and discovered that Ida actually had its own moon.

Other probes have fired impactors into asteroids and even landed on an asteroid to produce some amazing scientific data for us. There is much to learn about asteroids in our love of astronomy and that knowledge only makes our enjoyment of seeing them in the cosmos even more exciting.

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