

# **WHAT WE CAN KNOW**

*about*

## **LIFE ON OTHER PLANETS**

*“When I consider the heavens...What is man that thou art mindful of him?” (Psalm 8)*

Life on other planets is a theoretical possibility. Although some Christians reject this statement on the basis of Genesis chapter one, I do not. The God of the Bible can create whomever and whatever He pleases. God is not obligated to tell us what He may be doing in another corner of His creation. And it is asking too much of the Bible to demand what plan God may have for creatures elsewhere in the universe. Silence from Scripture about other worlds does not preclude the possibility of their existence. God is quite big enough to care for creatures beyond us earthlings.

The question, however, of whether life actually *does* exist on other planets is another matter. Can we know anything about this issue? I recently had a “conversation” with a relative who told me there is nothing we can know about this question. He was adamant and didn’t wish to discuss it further. Yet he is wrong. Even though we must admit that our present knowledge is very limited, it doesn’t follow that nothing can be known at all. The following facts may assist our thinking.

On the one hand our universe is huge. Imagine sitting in a sandbox. One thimble-full of sand would represent the numbers of stars we see on a very clear night with the naked eye. The entire sandbox would represent the number of stars in our galaxy. If every person on earth had their own sandbox, each representing a galaxy, we would still fall short, by billions, the number of galaxies in the universe. The famous “Hubble Deep Field” photograph shows hundreds of galaxies. Yet the field in that one photo is only the size of a grain of sand held at arm’s length. It would *seem* the universe is so large (at least a hundred billion galaxies) that there must be life on other planets. Astronomers have already identified a number of stars that have planets revolving around them (determined by the star’s slight wobble). In my own small telescope I have observed a star in the constellation Andromeda known to have one such planetary system.

Yet there is also a growing recognition that the set of demands for life is an enormous problem, and that the mere existence of billions of galaxies will NOT solve the problem. Indeed, the challenge of life itself is far greater than the huge universe just described. To give a few examples, in order for complex life to exist, not any old star will suffice. 80% or so of the stars we observe exist as doubles that orbit around each other. The gravitational turmoil created by two stars would render complex life impossible. Our Sun is often called “just an average star.” In actual fact our Sun is just the right size, the right age, and burns the right elements for complex life to be possible. Furthermore, it is not just a matter of our being just a bit closer to a smaller star or farther away from a larger one. The factors must be as they are. Only a fraction of galaxies are favorable to complex life. Their varied shapes give clues as to the kinds of stars they contain and what elements they throw off. Our location within the Milky Way galaxies; neither too close to the center, nor too close to the edge, this too is an absolute requirement. Too close to the core and we would be fried by the radiation; but too far

