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Prosecuting barrister Susan Evans could do.

the cost of dealing with young arson-

use it's terrible when you are having to deal with these types of fires."

# Look! Up in the skies! That could really be ET's little cousin

AS the human race can still only look at the stars, it looks more likely than that ET has already arrived from space, although the chances of his phoning home are pretty remote.

Scientists have found in the outer limits of our troposphere what might be life, but not life as we know it, let alone how ET director Steven Spielberg envisaged it.

What they have discovered is that bacterial micro-organisms are living happily 60 miles above our heads.

Colleagues on the ground have been able to culture the sub-creatures, which lends credibility to the theory that the primeval soup which started life on earth was once lost in space.

It is a theory that has been nurtured for 25 years by Cardiff University

Professor Chandra Wickramasinghe, who with Sir Fred Hoyle first put forward the idea that the dinosaurs died out when a comet hit the earth.

Dr Milton Wainwright, of the Department of Biotechnology at the University of Sheffield, who cultured the organisms, said, "Their properties are such that they are likely to survive in space."

Professor Wickramasinghe said, "The odds against them being carried up from the earth are small." As are the chances of the micro-aliens doing anything like bursting out of an unsuspecting scientist's stomach, for it seems the organisms are very basic and not in the least bit dangerous.

*Theory - page 3*

WESTERN MAIL (CARDIFF) 19 APRIL 2002

RRT

**RESEARCH:** Scientist adds weight to theory that life could have been carried here by comets

# Space bugs come down to earth and multiply

**RHODRI EVANS**

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Star

AN ACADEMIC has moved closer to proving his theory that life on earth came from space.

For the past 25 years Cardiff University Professor Chandra Wickramasinghe has postulated that terrestrial life was brought to earth by comets.

It remains a fringe theory but over the past few years the professor and his colleagues in India and the UK have collected increasing evidence to add weight to the claim.

Now, not only have living bacteria been collected from above the troposphere, they have been grown in the lab.

To test if bacteria were entering the earth's atmosphere from space, samples were collected from 41 kilometres above the surface of the earth.

Special steps were taken to ensure the samples were not contaminated from any earth-bound source.

Last year Professor Wickramasinghe's and a team from Cardiff University found microbes in the samples.

But now with the help of Dr Milton Wainwright of the Department of Biotechnology at the University of Sheffield they have been cultured.

Dr Wainwright said, "The samples were obtained from a balloon that left from India. The same sampling technique was used and this was done with great care to make sure it was not contaminated."

"Previous investigations in Cardiff found bacteria were there. They were viable but couldn't be cultured. I was invited to see if I could grow them. I took them back to Sheffield and there I grew them."

Dr Wainwright said the properties of the bacteria were such that they

CHANDRA Wickramasinghe is Professor of Applied Mathematics and Astronomy at Cardiff University and director of the Cardiff Centre from Astrobiology.

In 1986 he was awarded the Dag Hammarskjöld Gold Medal for Science, an award given jointly to Sir Fred Hoyle. In 1992 the Sri Lankan born professor was honoured by the President of Sri Lanka with the honour of the title Vidya Jyothi.

He has written more than 20 books and more than 250 scientific papers.

could survive in space, although it was possible that while in space they remained dormant.

He said, "Professor Wickramasinghe is convinced they come from space rather than earth."

"Their properties are such that they are likely to survive in space. They are up there, they are alive and when they come to earth we can grow them."

He said the organisms he had grown were similar to those on earth.

"These are not amazing or freakish organisms but this is what was predicted - they are earth-like organisms," he said. "They are not pathogenic and are not going to destroy the world. There is nothing to worry about."

"There are two different types of bacteria and they have been identified by genetic testing so we know exactly what organisms they are."

"No one else has ever isolated

From space dust to man - the theory of life on Earth



1. By 1.5 billion years ago the first multi-cell organisms had begun to develop.



2. Some 500 million years ago evolution had resulted in the rise of the first vertebrates - fish.



3. 150 million years later came amphibians, then reptiles 300 million years ago.



4. 200 million years ago mammals appeared, by 136 million years ago primitive kangaroos, and 60 million years ago mice, rats and squirrels had evolved.



5. By 50 million years ago the first primitive monkeys were to be found, but it was a further 30 million years before the evolution of chimpanzees.



6. By 4 million years ago the first humans were walking upright and by 2 million years ago they had started using stone tools.

7. Just half-a-million years ago the first modern men were to be found.

micro-organisms from space, grown them and given them names."

Professor Wickramasinghe is convinced the new research adds extra weight to his theory which he devel-

oped jointly with astronomer Sir Fred Hoyle, and which is known as panspermia.

He said, "It adds enormous credi-

bility because, as Dr Wainwright said, there is no doubt there are organisms - we have been able to grow them. The odds against them being

carried up from the earth are tremendously small.

However, the findings of the new research will now have to be scrutinised by the scientific community.

That will happen when the full findings are published in the scientific journal on microbiology.

**PEMBROKESHIRE:** Only one building in hidden eco-village will be torn down

Planners order destruction of 'green' house

**QUARANTINE**

Assembly to 150 jobs lost

**LLANTWIT FARDRE**

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