By JAMES STAMERS

THE IMITATION OF EARTH

Once they had been human — now they shared a remarkable destiny on an incredible new planet . . .

Illustrated by CARTER

HE was in some dark, moving medium which pressed him gently and released him and pressed against him again with irregular rhythm. He could not feel his hands. He could not feel any part of his body, except a sort of itching in his calf.

He thrust downward to relieve this mild irritation and, surprisingly, seemed to rise up. He seemed to be alive. He had no idea where, or even when, or whether these were valid questions, for the ship had been entering hyper-spacetime when they hit the asteroid belt. Warps and elongations took place in hyper-spacetime. Perhaps he was now a hyper-spaceman.

He could recall his name. It was John Shepherd. He could remember objective events such as Doc-

tor Adelitka Wynn creating a scene in the Mars terminal bar. Her sociology was better than her sense, as she accused him of making a pass at her. He would have liked to, perhaps, but ship's etiquette said: "Crews date, captains wait, space is not the place." He and she had been the last alive, and the last image he had seen on the screen had been a sun. Whose sun, which sun, and where were just uninformed speculations. But he was alive and conscious of himself. And he was buried deep in something.

He tried to define his feelings.

The alternating pressure of the darkness was felt only in one spot, in the area of his heart and about the size of a small bean. The occasional itching came from below this. He thrust again and again rose upward. Yet he had no heart, or no sense of hearing, for he could hear no sound of pumping. After several years in space he was only too familiar with the sound of his own blood circulating in his veins. The voids of space turned men into especially noisy bodily orchestras. There was none of that now.

He thought of himself as having the shape of a man, but perhaps that was just habit. The only area he could in fact feel was the bean slightly higher than his middle . . . and a column perhaps attaching him to the bean . . . and this itching down below, in what seemed to be one doubled-up leg. He thrust again and again, rising higher each time. There was nothing else to do. He never felt tired. He never felt anything, except the itching.

EVENTUALLY he felt a slackening on the upward pressure. He had kicked with his one leg, risen and found no resistance. Warmth played over him and he uncurled his head. So he had a head.

Habit had accustomed him to seeing with his eyes, from one set focal point. It was some time before he found he could see, in a general way, from any point on his exposed surface.

He could even see parts of himself, where the edges doubled over. It was like being able to run round a large gallery on the top of a dome, looking out at the view — and yet being the entire dome. He was green! He looked down beneath him and saw a long green pillar, tubular and shiny, rising out of a brown background.

He could still feel the beating pressure down below. It struck him that he was a plant, growing from seed which presumably his liquified, atomized or dissolved body had provided, and emerging on the surface of a planet.

Immediately overhead a bright orange satellite swung through a brilliant yellow and white sky. Unless there were two suns here, this was no more than a satellite body,

trapped in orbit, for he could feel the fierce beat on his surface from another source on the other side of the sky. This was a vast fiery globe traveling at immense speed.

He felt a vigorous thrusting inside his structure as he expanded. But darknesss rushed up from the bottom of the pit in which he stood, and cloud came in to mask the sky.

The general inference was that he was on a very warm planet around which the bright orange satellite swung, and that both were circling the hot sun at a speed far exceeding that of Mercury. Naturally that was only a subjective impression. But the little he had seen did not suggest any system he had ever heard of. He curled up.

Each time the sun went past he grew further out toward the edge of the pit. He branched and clung to the earth with subsidiary tendrils. It was exactly as though he were clawing with fingers into the earth, except that he did not remove them but simply grew on past them. When he reached the top of the pit, and accustomed his seeing to the greater distances now before him, he saw a violently active world of fire and steam. The ultra-rapid rotation of this planet made day and night into the flickering of a primitive film. Mountains of earth were raised up, broke off and shattered. Remote volcanoes fizzed into action briefly like fireworks and faded, their tremendous display spent. Whole swamps heaved and moved with internal motion. He became big enough to be able to lose a side creeper without giving it a thought. He felt no pain.

There were advantages in being a plant, and particularly in being an apparently highly active creeper. He could see from any point in his enormous network. He could organize races between his outlying tendrils. He found that the orange satellite exerted quite a strong pull on his internal sap system, which was not unpleasant.

THE first sign of life other than himself, oddly, came up from a neighboring pit.

It lay within the area he had grown over, but he had never bothered to send down shoots and side creepers into it. It was a peculiar sensation to recognize — Dr. Adelitka Wynn.

He sent out a sly root and detected that she was a bulb formation. Her indignation was transmitted violently along the ground, in a series of sharp shocks. She stood in tall sheaves of broad-bladed grass which rustled in the wind. He found it was intelligible, though of a different timbre than the deep, rough scraping he made with his own hairy leaves.

"Kindly keep to yourself," she said in effect.

Her leaves had a high hissing note. He marveled that she had

managed to retain the same unpleasant approach to life.

She was objectionable again when she had filled her pit and found she could not extend onto the flat earth beyond, because he had already covered the area.

"Come on," he said. "We've got the whole world to ourselves."

"I can't," she answered hissingly. "You have spikes on your stems. They'll tear my leaves."

He shut off the sap from a whole subsidiary system, killing it. She spread over his withered shoots and leaves without a sound of acknowledgment. They both developed toward the marshes.

As he approached, leaving her slower bulb-formation behind as he raced tendril ahead of tendril down the slope, he saw there were other forms of life, in the water.

He said nothing. But he quietly doubled his thorns and built up a reserve in his advance tendrils, so that he could rush an armored shoot across the ground at high speed if necessary. The aquatic life moved and died extremely fast. Whole species expanded from a single specimen, and for no visible reason extinguished themselves. Life on the planet did not seem to be stable. It was highly experimental. He had been down at the marsh for some time before the first crablike object came into existence and began to leave the water in fitful dashes. He gave it an early dose of his thorns. Thereafter it left him alone.

The former Dr. Adelitka Wynn, however, approached the marsh without looking.

He watched with satisfaction. She was a golden brown and tender green, and highly succulent apparently to the crab tribe. She cried for help.

They were, after all, the only two of human origin on the planet. So he put his reserve to work and sent an armored set of shoots racing across the ground as a barrier between her and the marsh. The crab tribes retreated.

"Thank you," she said, regenerating her clipped stems.

"That's the first time you've ever said that," he said hoarsely.

"I'm sorry. I am . . . really glad you're here."

"How glad?"

"This is a most peculiar world," she said, changing the subject. "I don't recognize it at all."

He said nothing but sent out an advancing barrier of thorns to clear a small area of marsh for her. He performed small services with his roots and tendrils, levering apart her bulbs where they were in danger of rotting, brushing small insects off her leaves when they became established in colonies. His main trunk was now thicker than the body of a man, and he covered several miles. In the marsh, his shoots were thick and black, stand-

ing like dark fingers deep into the ooze. Out in the drier areas, which seemed to be spreading, he modified his system to conserve internal moisture. He grew fine multitudes of hairs against the heat and predatory insects. Dr. Adelitka Wynn covered several acres herself, surrounded by his thorn barriers.

WHEN she felt well established, she flowered in great blue blossoms, heavy with orange pollen. He had been waiting, and flowered all along his immense length in every color of the spectrum, mile upon mile of wide flat flowers, open and ready for the breeze. She did not protest. He sent clouds of pollen from his anthers, turning the landscape into a fine mist that drifted over her. He covered her with several pounds of fine golden dust.

"Thank you," she said.

He wondered whether she would produce a bulb like her or a young creeper like himself. He kept young tendrils hanging around her like a catcher's glove, until she told him to go away and let her seed in peace.

She seeded in a particularly stormy period and in profusion. She did it with a gusto and variety that amazed him. Seeds with airborne devices, parachutes, airvanes, twirling rotators, balls of down, with hard shells, soft shells. She even kept some pods, and, with a gesture almost tender, allowed ripe seeds to fall into his waiting leaves. He passed these very slowly and carefully along his system, from cup to cup. He cleared a slope near the marsh and brushed deep furrows with his thorns to put the seeds in. He planted them gently and grew an open lattice of thorny stems above them, so that only the sunlight could get in. As they grew, he retreated his protective screen to allow them air and free ground of their own. They shot up straight and tall, saplings headed for the stars.

The other seeds had taken hold in remote regions, in marshes, on the rising and falling mountains, and in great flat stretches of pulverized volcanic dust. He found he was aware of them and could, by concentrating, even gain a vague impression of the ground around them, as if each were a locus of his consciousness. He also found a telepathic link now existed between him and their mother. It was vague at first but it became clearer, eventually superseding speech between them.

None of their children had flowers. Only the two of them flowered, pollinated and seeded with regularity. Their seeds spread in a variety — and variety was the word, for in the first seeding she had packed as many variations as she could imagine. There was, in his opinion, too much emphasis on

grasses after her own general style and too few creepers like himself. But that was a small detail. The original form did not last long in any case. Some of his seedlings had been enclosed by the rising marshes and were now more comfortable under water than above. A few wilder members even retained a measure of mobility and spent their lives floating from place to place.

HE did not entirely approve of this. But, as the marshes grew under the constant rain and acquired an unpalatable saltiness so that they were virtually seas, he saw the sense of this development. He now covered, by himself and in proxy through his seeds, almost the entire land area of the planet. She extended just as far. They came to a working agreement to leave certain areas primarily for the grass-like progeny and others for his more treelike seedlings. The global view led them both to consider the same experiment.

There were occasional worms and crablike creatures, minute bodies floating with his somewhat gipsy water-seedlings, but they and their own seeds were the only significant forms of life on their planet.

"Shall we see what we can evolve?" he suggested.

"I had that thought myself," she answered.

"At least we know the end product. It seems unlikely, now, but man must have come from much this environment on Earth."

"Very well. Where shall we start?"

"I have some enterprising water-plants," he said diffidently.

"*We* have."

It was an ambitious program. But, on the other hand, life on Earth had presumably also developed against all probabilities. Here on their planet they could provide continual intelligent guidance.

They went out into their water-plants and sensed through their miles of sensory surfaces the most favorable areas of the planet. They encouraged the water-plants to breed, cross-breed and extend. They fed fractional parts of themselves to each other, loaded certain areas with nutrient life, encouraged mobility.

Great continental areas rose and sank. Generation after generation was rapidly produced and as rapidly developed and died. The planet was littered with the remains of unsuccessful experiment. But, mainly by concentration on iron-rich diets and localizing their sight perceptions repeatedly in one particular part of their species, they produced plants which no longer responded to them. They had separate existence of their own.

At last they managed to lure repeated generations out of the water and onto land.

They had the advantage not of merely controlling the environment but of being the environment. Subject to the violence of volcanoes and the endless shifting of the planet's crust, aberrations in the plane of rotation, and rapid changes of climate, as ice mounted and retreated and heat waxed and waned, within these limits they could and did make arbitrary decisions. By withdrawing from an area, either of them could create a desert. By doubling their rate of growth in a local tributary of themselves, they could create a forest. Their descendant seeds were as much part of themselves as the original trunks. In fact, they rarely distinguished between that original growth and later developments. It came as quite a surprise to them both to find there was not much left of the first bulb clusters and the first sprawling creeper.

ONCE they had induced the more-or-less fishes to leave the water, progress was rapid.

There was never a difficulty quite as great as that again. On land, wherever the land happened to be at the time, they could induce generations of different shapes and sizes by modifying the vegetation — themselves, in their many forms. He took his branches higher and higher in a sparse zone, for example, to encourage the necks of the local animals to extend. They were remodeling their program deliberately on their old Earth, cutting off what they knew to be unsuccessful by-paths and nurturing the developments that should lead to man. The original crablike inhabitants had long since passed away, though they had used some features of these. The insects continued to multiply on their own by sheer probability and without their guidance.

They were both ruthless in their experiments. Once they abolished whole races of enormous vegetarians by withholding themselves in inaccessible areas. Like the dinosaurs, whom they resembled closely, these great reptiles were too big and too stupid.

She blamed him for having allowed them to feed too many generations on too highly radioactive parts of themselves.

"I can't be everywhere at once all the time," he said.

To annoy her, and because he had been a space captain, he encouraged an entirely abortive series of flying reptiles.

His excuse was true. By exerting his consciousness to its maximum, he could be aware of almost all the planet simultaneously, but this awareness lacked intensity and definition.

The comfortable maximum for concentration was about a hundred square miles. If he focused his attention within a square mile, his

roots and trunks and branches hissed with massive life and rapidly propagated themselves into a thick jungle. This in turn multiplied the surface areas and diffused his attention. There was a lot going on in the undergrowth that they both missed.

They almost missed their ultimate triumph.

THE satellite of their planet had cooled. The sun around which they swung was shielded by thick banks of the carbon dioxide they breathed off from their myriad bodies. They had stabilized most of the animals. Despite the repeated cataclysms they had arrived at descendants who could flower just as they themselves originally had flowered.

As a matter of fact, he was quite deeply taken with an offshoot wood of flowering trees. In the guise of honeysuckle he spent most of his time wooing tenderly round their trunks, to the fury of her grasses and the lashing of her reeds.

An object that was a rudimentary improvement on an ape came shambling into the wood where he was and quite idiotically tore off some of his prettier flowers.

On checking, he found there were several varieties of this object in various parts of the planet. None appeared any better than this brute, who whizzed through the trees and bred and died in a flicker of time.

"He'll never last," he said to her. "His metabolism burns out before he has time to do anything."

"He'll reproduce all the faster," she answered. "And leave those trees alone. At your age, really!"

She was right about the prototype brute. Never in their experiments had they produced a creature that was so active. They had raised animals that bred much faster, but none that bred at a reasonable pace and also kept flashing about the planet in a restless motion.

They had to litter the ground with suitable seeds before the humanoids stopped long enough in one spot to try planting for themselves. And even then, the idea did not take root for many many generations. But here and there, at last, they had the beginnings of a culture, and the beginnings of speech. The telepathic content of the humanoids' speech was intelligible to them, though not apparently intelligible to the humanoids themselves.

They concentrated on the temperate zones, where they could most easily encourage the humanoids to stand still from generation to generation. The humanoid dwellings flickered into existence and decayed too rapidly for any reliable observations until several tribes of them took to using stone for building materials.

"Well," he said thankfully, "at

last I can tell where they are without dashing from branch to branch like one of your monkeys."

He still did not believe her monkey experiments had had much to do with it. Secretly he suspected she had encouraged that development to annoy him — by putting multitudes in his hair, so to speak. It was just and proper, therefore, that the humanoids trampled all over her grasslands by preference.

It was in this mood that he created cool groves of tall trees and concentrated in them thoughts of love and pleasure.

The humanoids took the hint remarkably quickly. He had many happy generations encouraging the humanoids to sport in his groves. She was furious. But trees were his province and there was nothing she could do about it.

"You're debasing them," she complained.

"They're enjoying themselves, aren't they?"

"Voyeur!"

Well, he frankly enjoyed the swift rush of little pink bodies in and out of the groves. He was sorry when she succeeded in countering with a sterner line of thought, bred out of her deserts and thin-grassed mountains, where she was full of thought of privacy, and continence, and wonder and the stars. When he could, he made life uncomfortable for these higher-minded generations. He was never slow to create sybaritic and sensual surroundings to knock them off their mental perches. In one group of islands — which she could not reach because his pines starved out her seeds before they had a chance to establish — he had a series of permanent statues erected to himself by the humanoids, and he had frank and open worship. He considered it very proper. He maintained a cool and bracing temperature in the trees around the sandy shores.

He had passed through four or five hundred generations of giant redwoods before the little humanoids established themselves in the cities across the planet. Many of their activities were too fast for him to perceive, but he could contemplate their cities.

These were temporary structures, on the scale of the thrusting growth he felt in one of his redwoods. Still, to these dizzy little humanoids no doubt the cities lasted long enough. It was rare now for him to pick up a humanoid thought. Unlike their first models, the present generations thought at the high speed which characterized their entire life. A blurred flicker of an impression to him was apparently the whole life's output of one of her contemplatives sitting in a cave, until he fell to pieces and was whizzed away.

The pink varieties no longer worshipped him, save fitfully, but he still had a pleasant range of

warmer-colored humanoids whom he could tempt into an orgy. This kept him deep in the forests on the central belt of the planet.

SHE signaled to him from across the main ocean. He transferred his consciousness to join her on the edge of one of her wide prairies.

"I think we've done very well," she said.

"Surely you didn't call me all the way here just to say that."

"Yes. It really is Earthlike, isn't it? I felt it was about time you congratulated me."

He thought back.

"I don't remember, now," he said. "But it seems to be roughly similar."

"Roughly! After all this time, you dare to suggest I have only achieved a rough similarity? I was a trained sociologist, kindly remember. It is *exactly* like Earth."

He looked patiently up at the satellite and the stars. She was detailing the achievement interminably.

"It's very difficult to tell," he said, interrupting her. "Our time scale is quite different from what it was on Earth. These humanoids of ours breed and die like ephemerids."

She rustled impatiently.

"If you took trouble to examine the species from their time scale, you would find it is precisely the same as Earth time to them."

"Is it? Very well, I believe you. We have created an exact duplicate of the other Earth. Congratulations."

"You're just agreeing without proof. I have evidence to show the sociology is a detailed replica. These humanoids are repeating human history exactly as we knew it! One of our ivy shoots even reported a tombstone marked 'Killed in the Battle of Bunker Hill, June 17, 1775.'"

"Now you're exaggerating!" he said. "How could they possibly duplicate a time system that applied on the other Earth?"

"What other Earth?" she said.

— JAMES STAMERS