

Major Moon: astroentomologist

by Ella Curry

Hester Moon had always been destined to go to space. Nominative determinism, she'd quipped to her parents, in an unsuccessful attempt to temper their weakly-disguised horror at the news: she was going to be an astro-naturalist. An astro-entomologist, to be precise.

Granted, her route to space had been somewhat circuitous - she'd first studied Earth Biology at Cambridge, not Astrobiology. But when, in her second year, they discovered life in space beyond the merely microbial and botanical, her love for earthworms swiftly metamorphosed into an obsession with spaceworms. A Master's in the newly established field of Astroentomology soon led to her becoming the world's first expert on extra-terrestrial invertebrates. At least, she assumed they'd all be invertebrates, but who knew when it came to space bugs?

And so, when NASA asked whether she'd like to be the first person to visit Kepler 442-b, the "yes" flew from her lips faster than the Parker Solar Probe at perihelion (although these days even the most basic exploration craft tripled that speed). Her heart fluttered, moth-like, for one moment when she heard it would be a single-manned mission - but with NASA's newest hypervelocity heat-shielding technologies, it would only be a little over a month's journey before she arrived on the planet. Besides, she'd be in hyper-sleep for most of it anyway.

It was a pinkish morning in mid-June when Major Moon finally climbed into the spaceship. The wispy aircraft trails soaking up the neon sunrise didn't seem quite so far away as she buckled in for the long ride beyond them, and she wondered idly what

the dawn would look like from 442-b. It was so very pretty here on Earth.

She waved to her parents, tiny amidst the expansive grounds of the Cambridge Space Exploration Centre; they couldn't see her, but she knew that they knew she'd be waving. And just like that, there was countdown, lift-off, horror and excitement and claustrophobia and elation and, above all, the joyous freedom of rattling, burning, bursting through the atmosphere and out into the silence beyond.

As the Earth became a pale blue dot, the orchestra that accompanied Major Moon's journey to the stars was that of hissing valves as she hooked herself into the cardiopulmonary bypass machine. Her last sight before her eyes dimmed was of the stars streaking by in bright white lines to infinity.

Hester awoke suspended in a rosy mist, her ship gently orbiting 442-b. The planet was swathed in an undulating cloud of dust thrown from its pockmarked, ochreous face. Hester pressed her face up against the glass, her misting breath blending with the surreal splendour of the scene below. It was only her shallow breathing, the empty echoing creak of the spaceship, and the low humming of the blood in her head that seemed to thrum in time to the shifting mist - until a crackling voice jarred her out of her stunned reverie.

"Come in, Major Moon," was repeated three times with increasing urgency before it entered her consciousness. Hester fumbled around in a clumsy panic for her transmitter, the all-too-earthly noises of metal hitting metal near-sacrilegious amidst the silence of that huge fluctuating bank of pink dust.

"I'm here, I'm okay," Hester croaked, her voice strange after its long silence. She finished lamely, "Over," forgetting her training in the enormity of the newness around her.

“Initiating landing sequence,” the voice replied, cold and detached, alien. Hester gazed in mute wonder as the ship broke through the clouds, leaving torn wisps of glittering pink trailing behind. The humming intensified, and she realised with a start that it wasn’t just in her head - darting amongst the dust were myriad glinting winged insects, some huge, some tiny, all gorgeous. Hester felt the tears come, and wept for the sheer loveliness of it all - and the loneliness. What was she doing here, among these strange, wonderful creatures?

The eerie finality of the ship coming to rest, the door hissing open, sent an electric thrill through Hester’s body, swaddled in its spacesuit yet still horribly, humanly vulnerable on this strange planet. The ground, red soil mottled with sprawling blue and purple plants, was strangely spongy underfoot, and with each cautious movement, Hester sent a plume of miniscule insects fluttering. As she bent to look closer, a sudden movement made her recoil in surprise - what she had taken for a twisted root uncoiled into a great millipede-like creature. She was busily scribbling in her EntoDex about the fascinating similarity between earthly and alien bugs, when it opened unexpected elytra, unfurled vast silvery wings, and launched itself effortlessly into the air, its body rippling and twirling like a dragon’s.

The shock of such a stunningly strange sight finally broke through the remnants of Hester’s awed stupor, and she threw her head back and laughed. She waltzed clumsily, joyfully around, soon surrounded by a tumultuous cloud of curious insects too unused to her presence to be alarmed by it. And, on a sudden impulse, Hester tugged off her helmet. As she shook her hair free, she was scared by her own carelessness. But the trembling breath she took filled her lungs without pain, and her fear was overwritten by joy again at the first brush of the strange insects against her tingling face. She laughed into the

emptiness of space, her ringing voice carried upwards on the wings of the creatures who shared this lovely planet with her.

The light had dwindled to a murky, unearthly plum colour by the time Hester returned to the ship to send her first findings home. She waited with bated breath, staring at the transmitter's blinking screen as her discoveries winged their way through the vastness of space to Earth, her home, many lightyears away.

“Your transmission is being processed,” the voice said in its dull monotone. “Please hold.” Its emotionlessness had no place on this planet of joy and wonder, Hester thought to herself, inwardly prickling at its intrusion. It was just Hester and the cold, glowing screen in the spaceship, and she felt herself pulled dreamily towards the shining world outside like waves to a moon. But just as she was putting down her transmitter, it crackled to life again.

“Your findings show a 98.3% match with our predicted values, placing human survival on Kepler b-442 in the highly likely category. We will of course need you to bring home living specimens for further evaluation, but this is reassuring news. We are now initiating stage one of Kepler b-442 colonisation, effective immediately.”

The warm glow generated by the praise froze, shattered. “Wait, colonisation? What are you talking about?” stammered Hester, wonder forgotten in the sudden flood of horror. “What - what about the insects?”

There was a slight hesitation, pregnant with irritation, before the voice came crackling back. “Mission Control is unsure of the nature of your enquiry. You were sent to Kepler b-442 to ascertain its suitability for supporting complex life. The insectoid life forms currently populating the planet are only to be utilised as indicator species - our experiments on your

specimens will have the additional benefit of helping us to eradicate them most effectively. Your information has been invaluable in assuring the safety of this planet for human existence, and your return will be marked with great honour.” There was a veiled threat in that last sentence, delivered in its clipped metallic terseness.

Hester saw things clearly with a cold and sudden certainty. She thought with a rising, stricken panic of the reams of information that she had already sent back, and the transmitter fell from her slackened hands with a blunt crash on the floor that ricocheted around the spaceship.

Before the echoes stopped, Hester knew what she had to do.

The muffled voice was still whining out - “Come in, Major Moon. Is your transmitter operational? Come in.”

Hester screamed and hurled herself against the wall, sending equipment flying. She threw open the door, and as the insects swarmed in, Hester cried out in a fear that was all the more convincing because she was afraid - not of this planet, but of the one she came from.

“ABORT MISSION. THE INSECTS ARE HOSTILE, REPEAT, THE INSEC-” Hester choked, her sentence descending into anguished screams that she gradually let fade, until “Major Moon, come in, repeat” was the only sound among the falling glass, beating wings, and weakly beeping machinery.

As the transmitter at last fell silent, Hester got up from the floor, carefully scooping the creatures that had crawled over her to safety. The finality of her decision had sunk in as she had lain there, feigning death. She could never return to Earth. Her heart beat painfully, hot tears coursing down her cheeks as she thought of her parents - but she couldn't let this planet die.

The sky outside the ship was beginning to lighten, and Hester's pain mingled with great peacefulness as she watched the sun slowly rise on the planet that she'd saved. The dawn was more beautiful here than on Earth after all.