# The great succulent sting

Plant poaching to feed a mysterious black market makes a fascinating documentary, finds **Katie Smith-Wong**

Film

**Plant Heist**

**Chelsi de Cuba and Gabriel de Cuba**

**Premiere at SXSW Film Festival, online 16-20 March**

SIBLING RIVALRY CREATIVE

IN 2017, a post office in the small Californian community of Mendocino was experiencing delays because a man was mailing multiple boxes to Asia. Dirt was falling out of the mysterious packages, so local game warden Pat Freeling was alerted to investigate. When Freeling X-rayed the boxes, he found them full of succulents: plants with thick leaves for holding a lot of water so they can survive in arid regions.

This incident is used in documentary *Plant Heist*, directed by siblings Chelsi and Gabriel de Cuba, to demonstrate the tip of a growing black market in these plants.

The short film doesn't explore the origins of the plant poaching, but social media may have something to do with it. Succulents such as *Dudleya farinosa* often appear on Pinterest and Instagram, generating interest among those looking for small, "cute" and ready grown plants.

Some 70 per cent of succulents are cultivated in California, but it is the popularity of the plants in Japan, China and South Korea that has driven the formal market and fuelled poaching over the past two decades.

One notable case took place in 2018, when three South Koreans were prosecuted for stealing about 5700 succulent plants worth a total of $600,000 from California with the intention of exporting them to Asia. In the film, Freeling recounts the events leading to the bust, which subsequently uncovered a profitable black market for *D. farinosa*.

When some natively grown succulents can sell for around $50 each, it is no wonder poachers wander round California taking them from public areas and private properties, or riskily pull full-grown plants from cliffs.

With the prices of succulents increasing by 62 per cent between 2012 and 2017 in the US, the cost factor becomes *Plant Heist*'s main focus.

> **"The popularity of succulents in Japan, China and South Korea has also fuelled poaching"**

Although the film includes interviews with Freeling and other law enforcement officers, local residents and environmentalists, it doesn't fully explore the depth of consumer interest in the plants. There is a notable lack of interviews from those who collect, sell or even grow succulents, so we don't see what is driving the demand at first hand or the effect that poaching is having on the commercial market.

Without this perspective, the narrative becomes unbalanced and fails to set the fullest context for poaching activities – beyond personal financial gain, that is.

*Plant Heist* also offers little insight into the environmental impact of removing succulents from their native habitat. Two researchers who feature in the film and could have added that depth are Stephen McCabe at the University of California, Santa Cruz, and Brett Hall, director of the California Native Plant Program.

They talk briefly about how succulents are a source of food and water for local wildlife, as well as how rare plants are fast becoming targets for poachers. Yet their picture of the ecological impact of poaching fails to shift the direction of the documentary.

The majority of the film looks beautiful, thanks mainly to visuals from the California Department of Fish and Wildlife (CDFW) and picture agency Shutterstock, but having the beauty come from elsewhere makes the aesthetic feel slightly artificial.

**Fully grown succulents are being poached from California**

The severity of succulent poaching is underlined by the participation in the film of the CDFW and deputy district attorney for Monterey county, Emily Hickok, who reiterate that plant poaching not only poses a serious threat to Californian wildlife, but is also a criminal offence.

Overall, *Plant Heist* offers a brief yet captivating look into succulent poaching, while reiterating that something is being done to prevent this surprising yet growing crime. ▮

Katie Smith-Wong is a film critic based in London

# Building a robofuture

As social robots edge closer, a thoughtful book suggests we would do well to see them as animals, says **Vijaysree Venkatraman**

Book

**The New Breed: How to think about robots**

**Kate Darling**

**Allen Lane**

**BEFORE dawn, a Roomba sweeps the floor in my home. Suckubus (as we call it) can get tangled up with shoelaces or carpet tassels and need rescuing. At the local grocery store, a robot called Marty patrols looking for spills, summoning employees loudly for clean-ups. Its skulking presence annoys customers.**

**In the world's cities, free-roaming robots are poised to work alongside humans. Will these machines steal jobs? Might they harm the humans they work alongside? And will social robots alter human relationships?**

**Luckily, robot ethicist and MIT Media Lab researcher Kate Darling is on hand. In her book *The New Breed*, she reminds us that we have interacted with non-humans before. Why not view robots as animal-like, rather than as machines?**

**Throughout history, we have involved animals in our lives – for transport, physical labour or as pets. In the same way, robots can also supplement, rather than supplant, human skills and relationships, she says.**

**When it comes to making robots safe to interact with, sci-fi fans have always fixated on Isaac Asimov's laws of robotics: a robot must not harm a human; a robot must obey orders; a robot must protect itself. Later, Asimov added a law to precede the others: a robot must not harm humanity or, by inaction, allow humanity to come to harm. But in the real world, says Darling, such "laws" are impractical, and we don't know how to code for ethics.**

**So what happens if a robot does accidentally harm a human at the workplace? As they are created and trained by people, this could make it easier to assign blame, says Darling.**

**It is the social robots, designed to interact as companions and helpers, that trigger most dystopian visions. Human relationships are messy and take work. What if we abandon them for agreeable robots instead?**

**Darling offers helpful perspective. Nearly five decades ago, she writes, psychologists worried about the popularity of pets and that they might replace our relationships with humans. Today, few would say pets make us antisocial.**

**If we are open to a new category of relationships, says Darling, there are interesting possibilities. At some care homes, residents with dementia enjoy the company of a furry robotic seal, which seems to act as a mood enhancer. Elsewhere, autistic children may respond better to coaching when there is a robot in the room.**

**Research shows people tend to connect with well-engineered social robots. And as Darling writes, we often project human feelings and behaviour onto animals so it is no surprise if we personify robots, particularly ones with infantile features, and bond with them.**

**Even in a military context, where robots are designed to be tools, soldiers have mourned the loss of bomb disposal robots. Darling cites a trooper who sprinted under gunfire to "rescue" a fallen robot, much as their predecessors rescued horses in the first world war. The question isn't whether people will get attached to a robot, but whether the firm making it can exploit you. Corporations and governments shouldn't be able to use social robots to manipulate us, she says.**

**Unlike animals, robots are designed, peddled and controlled by people, Darling reminds us. Her timely book urges us to focus on the legal, ethical and social issues regarding consumer robotics to make sure the robotic future works well for all of us.** ▮

Vijaysree Venkatraman is a science journalist based in Boston

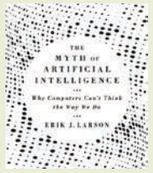
HORIZONS WWP/ALAMY

Robotic seals can be a mood enhancer for people with dementia

## *Don't* miss

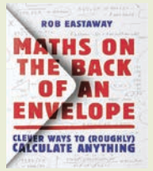
**Watch**

**The Handmaid's Tale** is back for a fourth season in April on US streaming service Hulu and the UK's Channel 4 later this year. This season of the hit sci-fi drama has June (pictured) on the run as the resistance grows in Gilead.




**Read**

**The Myth of Artificial Intelligence** sees the US tech entrepreneur and pioneering researcher Erik Larson explain why he thinks computers can't think the way we do, and why this actually makes them so much more exciting and useful for our future.




**Read**

**Maths on the Back of an Envelope**, packed with anecdotes and quizzes, is author and *New Scientist* puzzle-setter Rob Eastaway's reminder that we will all understand numbers best when we decide to ditch our calculators.

HULU

The film column

**Total exposure** *Chaos Walking* is set on a planet that human settlers have called New World. But it is an off-kilter place: women have been wiped out and men have been altered so that their thoughts are audible and visible, says **Simon Ings**

Simon Ings is a novelist and science writer. Follow him on Instagram @simon_ings

MURRAY CLOSE/LIONSGATE

**Viola (Daisy Ridley) and Todd (Tom Holland) flee a dangerous settlement**

Film

**Chaos Walking**
**Directed by Doug Liman**
**Amazon Prime Video**

## Simon recommends...

Books

### Dying Inside
**Robert Silverberg**
*Before he drank the sword-and-sorcery Kool-Aid, boy could Silverberg write! For years, New Yorker David Selig has been using his telepathic abilities for his own convenience. Now his gift is fading, and with it his grip on reality.*

### The Demolished Man
**Alfred Bester**
*The book that won the first ever Hugo award for best novel. Ben Reich plans to kill a rival under the noses of a telepathic police force. If he is caught, he will be taken apart, thought by thought.*

IN *Chaos Walking*, Todd Hewitt (Tom Holland) is learning to be a man – and in Prentisstown, ostensibly the only settlement to survive humanity's arrival on the planet New World, this means keeping your thoughts to yourself.

Something about the planet makes men's consciousness audible and visible to others. As such, they must constantly hide their thoughts by focusing on something else, rehearsing daily chores or even just reciting their own names again and again. Women were unaffected, apparently, but rarely glimpsed aliens called the Spackle killed them all years ago, condemning the settlement to eventual extinction.

If this account of things seems a little off, imagine it delivered by an especially troubled-looking Mads Mikkelsen, who plays Prentisstown's mysterious, eponymous mayor. Watching his settlement's secrets come to light, one by one, is one of this film's chief pleasures.

Newly arrived, Viola (Daisy Ridley) is scouting ahead of a second wave of settlers when her landing craft all but burns up, leaving her at the mercy of the men of Prentisstown. You might think they would be glad of her arrival – but you would be wrong.

*Chaos Walking* debuts under something of a cloud. To begin with, no one could settle on a script they liked. Charlie Kaufman (of *Being John Malkovich* fame) got the first bite of the writerly cherry, before the project was passed from pillar to post and ended up being crafted by Christopher Ford (writer of *Spider-Man: Homecoming*) and Patrick Ness, author of the young adult sci-fi trilogy on which this film is based.

**"*Chaos Walking* should have ended up a mess. But while it isn't a blockbuster, it is a real accomplishment"**

By all measures, then, *Chaos Walking* should have ended up a mess. But while it isn't a blockbuster, it is, nonetheless, a real accomplishment: a disconcerting little masterpiece of sensitive acting and well-judged world-building.

In this film, men quite literally cannot shut up, and in her very first conversation with Mayor Prentiss, it dawns on Viola that this gives her huge advantages. She is the only person here who can lie and keep secrets, crucial points made almost entirely in dialogue-free reaction shots.

Todd is a naif who must save Viola and get her to a nearby settlement that he never even realised existed. He is the model of what a man must be in New World: polite, honest and circumspect. His bid to "be a man" in such circumstances is anything but straightforward, but Holland keeps our sympathy and attention.

Indeed, the great strength of *Chaos Walking* is that it interrogates gender roles by creating genuine difficulties for its characters. Even Prentisstown's misogynist preacher Aaron (surely David Oyelowo's least rewarding role yet) turns out to make a certain amount of dreadful sense.

No gender truly benefits from the strange, telepathic gifts granted to the settlers of New World. Only good will and superhuman patience prevent human society going up like a powder keg. This has happened once in Prentisstown, and – given the stalled settlement of the planet – it has almost certainly occurred elsewhere.

*Chaos Walking* isn't, in any easy sense, a feminist fable. The film is about people's struggles in unreasonable circumstances – and for all the angst bound up in its premise, it becomes, by the end, a charming and uplifting film about love and reconciliation. ▮