OPUNTIA 531

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Opuntia is published by Dale Speirs, Calgary, Alberta. It is posted on www.efanzines.com and www.fanac.org. My e-mail address is: opuntia57@hotmail.com When sending me an emailed letter of comment, please include your name and town in the message.

ABOUT THE COVER: I took this photo on July 27 from the southeast corner of Glenmore Reservoir, looking due north. At centre shoreline, you can just see a few skyscrapers of the downtown core poking up behind the horizon.

At centre left of the shoreline is a cluster of buildings belonging to the Calgary Canoe Club. Out on the water in front of them is where dragon boats races were held. See further on in this issue.

PARTY ON !
photos by Dale Speirs

In Calgary, as soon as the Stampede rodeo is over, the ethnic and street festival season kicks off. They were silenced by the pandemic for two years, so Calgarians are now ready to party hearty. The ethnic festivals are usually held downtown at Olympic Plaza and the Stephen Avenue pedestrian mall. Street festivals are, of course, all over the city. And away we go.

Fiestaval. 2022-07-22

Traditionally the hispanic community (plus Brazilians) have the first weekend after Stampede down at Olympic Plaza. Here are some views from their event, called Fiestaval.

Below: Nopalea is the Spanish word for opuntias. How could I ignore this food truck?

Above right: Golden Cactus barbecue.
Bottom right: Peruvian crafts.

Brazilian barbecue sampler, with 5 slices prime beef, chicken, and spicy sausage.

Chicken skirt with mini beef sausages and salad.

Inglewood Sunfest. 2022-07-30

The following weekend was the Sunfest street festival in the Inglewood district of central Calgary, just east of the downtown core on the other side of the Elbow River. Lots of good food. I nourished myself well on cheese pizza and Italian smokies.

Just two of the many food trucks.

Street performers about. Politicians too, unfortunately.

The following day I walked from my house up to 33 Avenue SW in the Marda Loop district. The road was closed off for a 4-on-4 street hockey tournament. Street hockey is played in every Canadian community, where kids use rubber balls and wear running shoes.

I didn't stay long. There were no food trucks and only a few hockey-related kiosks. Watching my neighbours play street hockey wasn't very exciting.

It was 30ºC so I had to admire this goaltender wearing full gear in the heat.

Here Be Dragons.

Also within walking distance of my house, in the opposite direction, is Glenmore Reservoir, where the Calgary Canoe Club has its clubhouse.

The weekend of August 5 to 7 were the dragon boat races.

My apologies for the grainy photos. The dragon boats were about a kilometre out into the reservoir, plus I was shooting directly into the morning sun.

Below: The Canoe Club dock with resting dragon boats.
Bottom: Up on the park were the competitor tents.
Top right: Some of the commercial kiosks in the shade of cottonwoods.
Middle right: The races were sponsored by a Chinese petroleum corporation.
(Comment about Chengdu Worldcon deleted for lack of space.)

ACTION ADVENTURE ON THE AIR: PART 9
by Dale Speirs

[Parts 1 to 8 appeared in OPUNTIAs #426, 447, 476, 487, 494, 502, 518, and 526.]

The old-time radio series mentioned below are available as free mp3s from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary In keeping with the dragon boats of Calgary, I'll go off on a nautical theme.

Carlton E. Morse.

One of radio's most prolific writers was Carlton E. Morse, who wrote soap operas and action-adventure series. Insofar as the latter are concerned, he had several series that were basically continuous, changing their titles and character names if they changed networks but maintaining the same sort of plots. His action-adventure stories were basically soap operas with gunfire.

I LOVE A MYSTERY aired from 1939 to 1944, then was repeated in 1949-50 with the same scripts but new casts. ADVENTURES BY MORSE aired on radio during the 1944-45 season. I LOVE ADVENTURE aired in 1948. Morse's main activity was the soap opera ONE MAN'S FAMILY, which aired from 1932 to 1959.

From ADVENTURES BY MORSE was "A Coffin For The Lady", a three-parter that aired in March 1944. The setting was Marmaduke Island, stated to be somewhere off the Pacific coast of Canada. Rain and damp prevailed, which certainly describes the British Columbia coast.

Captain Bart Friday and Skip Turner had taken a job for the American military intelligence. They lay in wait for something to happen. Turner complained incessantly about the cold damp. He was hungry too. Welcome to Canada.

Major James Lawrence was their controller. They were to wait for something to happen. A dying soldier came out of the bush carrying a bound and gagged woman. He gasped that Lawrence was dead and they were to get the woman back to civilization.

As they fled to their boat, shots were fired at them. Having escaped, they cut the woman free. She spoke with an accent, identifying herself as Judith Riker. They landed on the mainland.

From there on horseback (where did they get the horses?) to Fort Lancer where they booked into a hotel and waited. The village ostler tried to render them unconscious but failed. (In 1944 it was doubtful that British Columbian fishing villages had livery stables.)

Riker, meanwhile, ran away into the forest. Friday and Turner followed her to a cabin where she rendezvoused with someone. Peeking into a window, they saw her getting into a coffin.

As they watched, an ugly brute with a gravelly voice stuck a gun in Friday's back. Ugly took them inside to meet the boss Ahmed, who talked with an ah-so fake Chinese accent. Peculiar because he was later identified as a Bengali.

The coffin was gone and so was Riker. Ugly tied their hands behind them, then marched them into a nearby barn. Once inside, he made them lie down, bound their feet, then left. Fortunately Friday always carried a razor blade in his shoe. Soon they were free.

Or not, for while walking across the hay-covered floor, they fell into an underground tunnel. Pause for a comment from an old cowhand from the Red Deer River. Turner specifically said there were no horses in the barn and the place was too clean to have ever held livestock. Why then was the barn floor covered with a thick layer of hay, wall to wall?

Did Carlton Morse, a city slicker, mean straw? The terms are not synonymous. Hay is green feed such as grasses or alfalfa. Straw is the dried stems of grain crops left over after the seeds are harvested. It is used for livestock bedding and has no nutritional value.

Notwithstanding that, Friday and Turner made their way along the tunnel. They found themselves under the cabin and discovered the coffin in the tunnel. They opened the casket and found Riker alive.

She was angry with them and refused to leave the coffin. Ahmed and Ugly arrived, rendered Friday and Turner unconscious, and screwed the lid back on the coffin. When the heroes awoke, bound hand and foot again, the coffin was gone. Once more, Friday's trusty shoe razor saved them.

Up into the cabin and a rush to the harbour. A steamship had just pulled out from the dock. As the two men fretted on the shore, who should they meet but

the supposedly deceased Lawrence. He had a patrol boat with which to intercept the steamship.

En route the three men recapitulated the plot at great length. Lawrence explained that Riker had paid $1,000 to be smuggled into the USA, unaware that she would instead be taken to the Bay of Bengal and be sold on the slave market.

They intercepted the steamship. Lawrence announced themselves as the United States government and boarded the steamship. Really? In Canadian territorial waters where he had no jurisdiction? During World War Two when the Royal Canadian Navy constantly patrolled the coast?

They went below decks and confronted Ahmed. Searching the cargo hold, they found Riker. She was surprised to find she wasn't going to the USA. She said she was a stateless person who fled occupied Norway, traveled across Russia into Alaska, and thence to British Columbia.

The rest was a wrap-up. The white slavers were dealt with and Lawrence helped Riker to her freedom.

Sailing, Sailing, Over The Bounding Main.

ESCAPE was an anthology series that aired on radio from 1947 to 1954. The episodes were a mix of genres from mystery, science fiction, and adventure. Available as free mp3s from www.otrr.org/OTRRLibrary

"S.S. San Pedro" was an episode that aired on 1948-08-22, based on the novel of the same title by James Gould Cozzens. It was adapted for radio by Les Crutchfield and John Dunkel.

The ship was on its last voyage before scrapping. It was decrepit and the captain wasn't in much better condition. The First Officer Blodell was basically running the ship, with 400 passengers and 200 crew. The ship set sail for Argentina from New Jersey, listing to port and pumps running continuously.

The captain introduced to Blodell a passenger named Dr Percival, a skeletal man with mysterious authority. Blodell was also plagued by a young female passenger Marilee who was stalking him.

Troubles never seem to come singly. The #7 stateroom had a jammed door lock and a mysterious occupant, possibly Percival. Blodell's duties were further complicated by a storm broadsiding the ship and increasing the list to 11 degrees. One thing after another.

Things got bad and things got worse. The ship began taking on water. Crew were washed overboard. The boilers went down to one-third steam. The captain died in his cabin. Blodell ordered an SOS sent out and abandoned ship. Suddenly the ship leveled. Blodell played a hunch and ran to stateroom #7, now open and empty.

Marilee met Blodell on the bridge as the ship sank. They had both missed the last lifeboat. It was his duty to stay with the ship. She didn't get on the lifeboat because she saw the skeletal form of Percival standing by it and suddenly realized who he was. The lifeboat capsized when it hit the water. She realized she was going to die no matter what she did.

As the water flooded the bridge, Merilee asked Blodell rhetorically who he thought Percival was. The water rose and the sound faded to silence. No happy ending.

"Clear For Action" was written by Antony Ellis and aired on 1953-06-14. Set in the 1800s, this was the chronicle of a U.S. Navy warship, Capt Seal commanding, sent to the Caribbean to deal with a French sloop of war attacking American merchant ships.

Their first contact was with a British frigate, which tried to impress some of the American sailors. They were sent off but no shots were fired, just an exchange of angry words.

Next the Americans found a merchant ship, Capt. Matthews commanding, damaged by the French sloop. The ship managed to escape into a squall but was stranded with a broken mizzenmast. Matthews' daughter Jennifer sailed with him, providing a love interest for Seal.

The Americans transferred four guns and some of their crew to Matthews' ship to bait the Frenchies. The frigate hovered on the horizon waiting for action. The sloop spotted the merchant ship, hove to, and was surprised to discover it was now armed. The boarding party was slaughtered and the sloop disabled. All was well, for the Americans at least.

A straightforward action adventure story. No great drama but worth listening to once. This might have made a series in its own right.

THE VOYAGE OF THE SCARLET QUEEN aired on radio for a brief run in 1947 and early 1948. The episodes were written by Gil Doud and Robert Tallman. Each episode was stand-alone but also served to advance an over-riding story arc. The series is available as free mp3s from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

The ketch Scarlet Queen was captained by Philip Carney, who introduced each chapter by reading an extract from his captain's log. So as you see, Captain Kirk wasn't the first to do that. His name was spelled variously as Kearney or Karney (which was how it was pronounced), but was most often written as Carney, which I will use. This was radio, where listeners often had to guess at a name.

Carney and his crew sailed from one port to another, and one adventure to another. The route was a zigzag, as befits a tramp freighter, but the locations were authentic. The first episode began with them leaving San Francisco, then meandering about the South Pacific. The First Mate was Red Gallagher.

Carney's employer was Ku Chei Kang, whose trading company owned the ship. Their mutual enemy was a Portuguese crime lord named Francisco Constantino. He operated out of Macau, at that time a Portuguese enclave in China, not far from Hong Kong.

The ketch was a sailing ship which even then was obsolete, but did have the advantage of much cheaper operating costs. In the postwar world, the profit margin was slim enough, so every penny counted for marginal operators such as Kang. The ship was painted bright red, hence its name.

The story arc over the first half of the series was a chase between Kang, Constantino, and assorted other factions for a fabled $10 million treasure (multiply by ten for today's depreciated currency).

"The Shanghai Secret" was the first episode of the series and aired on 1947-07-03. The Scarlet Queen was about to depart San Francisco when David Malone, the first mate, was tortured and murdered by persons unknown. The SFPD and Coast Guard blocked the ship from sailing. The police took Philip Carney into custody as a suspect but soon had to release him.

Someone had deposited $50,000 into a bank account in Carney's name but that wasn't proof of murder. In self-defense Carney went detecting along the waterfront. Red Gallagher showed up under suspicious circumstances.

The Scarlet Queen had just been assigned by Kang to retrieve the $10 million treasure. Constantino's men had tortured Malone to find out where the treasure was but his misfortune was that he didn't know.

Carney had to take Gallagher on as the new first mate under duress. There was a femme fatale playing against both Kang and Constantino. Carney needed to find the murderer before his ship would be allowed to sail. He did and it did.

"Ah Sin And The Balinese Beaux Arts Ball" aired on 1947-10-16. The Scarlet Queen had docked in Bali where Philip Carney found himself caught between rival factions hunting the $10 million treasure.

The venue was the aforesaid Beaux Arts Ball, where the verbal jockeying was laced with violence. There was an amusing scene where the host Ah Sin referred to a guest as a Caucasian, much to that man's displeasure. So you see, it works both ways.

Shots were fired, Carney was slugged unconscious, and a femme fatale slunk about with her own agenda. Just about everyone was forcibly confined at one time or another. The mansion was a busy place.

Eventually time was called and Ah Sin counted up his broken furniture and dishes. The whole matter proved to be a draw. This was a zero-reset episode where everyone, the survivors that is, carried on to the next episode unchanged.

STRANGE ADVENTURE probably aired in 1945 but little is known about this radio series. The episodes were about 3.5 minutes long, written by Charles Crowder and narrated by Pat McGeehan. Some episodes were based on factual history, but most were fiction. The series was syndicated as a space filler or for insertion inside a variety show.

The first episode of the series was "The Bronze Monster". A warship on a wave-tossed sea had a cannon break free from its mount. The tremendous weight could not be restrained by human strength. It wasn't mentioned in the episode, but this was how the phrase "loose cannon" came into use, applied to someone who is a danger to friend and foe alike.

The cannon began bashing the interior of the ship into rubble. A sailor was killed when he could not jump out of the way fast enough. The cannon was finally restrained when the gun captain threw some coils of rope around the wheels to jam them.

The rope braked the cannon and allowed a gunner to tip it over on its side with a pry bar. The commander gave the gun captain a medal and then sentenced him to death for negligence.

Bogie And Baby.

BOLD VENTURE was a syndicated old-time radio series that aired during the 1951-52 season and is available as free mp3s from www.otrr.org/OTRRLibrary. It was a star vehicle for Humphrey Bogart and his wife Lauren Bacall, with all episodes written by Morton Fine and David Friedkin. The series was transcribed and then marketed to independent radio stations.

The radio series was two steps removed from Ernest Hemingway's novel TO HAVE AND HAVE NOT via the 1944 movie version starring Bogart and Bacall. The radio series was vaguely similar to the book and somewhat similar to the movie, although it actually owed as much to CASABLANCA.

The setting was Havana, Cuba, long before the Communist takeover. Slate Shannon (played by Bogart) owned a boat called Bold Venture and did odd jobs with it to earn his living. His other business was a cheap hotel called Shannon's Place. His sort-of girlfriend was Sailor Duval (Bacall).

A calypso singer King Moses interpolated songs every so often. The dialogue was spoken more harshly in early episodes than it would be later in the series after the actors found their way. The plots were basic and often owed something to Hemingway.

"A Bullet For Shannon" aired on 1951-04-16. Slate Shannon and Sailor Duval had been hired by a man named Bullock to ferry him to Key West. He said he had $60,000 in cash and flashed it about. Not for long he did.

He was murdered in a drive-by shooting. Gangster Johnny Rice had resented Bullock stealing the cash from him. When Rice learned there had been two witnesses, he went after Shannon and Duval.

So did the police, who liked to arrest them at least once per episode. Especially when they found the cash on Bullock's body. The listener will be surprised that the cash was reported by the police instead of pocketed. They were in Havana, after all.

Rice, meanwhile, wanted his cash back. The alarums were predictable. King Moses summarized the plot in song for Duval. She and Moses explained some of the plot to each other before the live action resumed.

Another excursion took place on the Bold Venture, as Rice's men booked the boat to Key West in a double-cross. Rice was smarter, killed his underlings, and hijacked the boat. Shannon and Duval pulled off one more cross-up and stranded Rice on a sandbar off Key West, where he could await American justice.

"Haven's Venezuelan Isle" aired on 1952-03-17. Gene Moore came to Havana looking for his wife Claudia, who had liquidated his assets and then decamped with the money. Meanwhile Slate Shannon and Sailor Duval were hiring out their boat for $300 to a man named Tommy Haven, who was heading to an island off Venezuela.

The plot having thus been set up, Gene came looking for trouble. Claudia was running away with Haven, and Gene fingered Shannon as a co-conspirator. Claudia was stabbed to death in her hotel room.

Her death may have been a mistake, as a sneaky-looking little man named Milo had been asking after Gene. He threw a knife in the dark and got her. Haven had hired Milo and got him with a knife in the back for botching the job.

Various accusations were flung about. Gene was insistent that Shannon was in on the deal. However Haven, using a gun this time, silenced Gene. He then took Shannon and Duval at gunpoint out on the Bold Venture.

There was a fight to the death, with no suspense about who won. Since all the guest stars were dead, there was nothing else to do but sail back to Havana. This sort of plot was not uncommon in radio mysteries. If a writer painted himself into a corner, and time was running out in the episode, then a standard solution was to kill off everyone who was a supporting character.

LIGHTS, CAMERA, MURDER!: PART 8
by Dale Speirs

[Parts 1 to 7 appeared in OPUNTIAs #394, 413, 429, 451, 478, 495, and 520.]

In The Beginning.

"The Moving Picture Mystery" by Ian Morson (2005, THE BEST BRITISH MYSTERIES 2006 (sic), edited by Maxim Jakubowski) was based on the true facts about Louis Le Prince, who invented the first motion picture camera.

Just as his camera came to public knowledge, he disappeared under mysterious circumstances. He was last seen getting on a train but never arrived at his destination. The case was never solved. Other inventors subsequently got the credit for movies.

In the story, Albert Potter was hired by Le Prince's wife Elizabeth to investigate the disappearance. Potter retraced Louis's last train trip. He did not find the answer but came close without realizing.

The narrative informed the reader about the true fate of Louis. He had become an unnamed inmate in an insane asylum where he was taken after an accident. Louis now lived in a padded cell, where he watched an imaginary movie on the wall, one that terrified him endlessly.

Murder Off Stage.

"I, The Vampire" by Henry Kuttner (1937 February, WEIRD TALES, available as a free pdf from www.archive.org) was about Chevalier Pierre Futaine, who was taking Hollywood by storm as the latest discovery. Actresses associated with him suddenly withered on the vine, and key people who might have made a ruckus died in unusual circumstances.

Futaine evaded being photographed until a smart cameraman left a movie camera running on automatic. No image on the film but instead bright diffuse light where Futaine's exposed face and hands were.

Quicker than someone could shout "Bram Stoker!", the narrator confronted him. He confessed all, said he was tired of it all, and deliberately walked outside into the sunlight. Finis.

YOURS TRULY, JOHNNY DOLLAR was the second-last of the old-time radio series, airing from 1949 to 1962. (The final episode of SUSPENSE aired immediately after the final episode of YTJD and ended radio drama.)

Johnny Dollar was an insurance investigator based in Hartford, Connecticut. Each episode began with a claims adjustor from an insurance company ringing him up and asking him to take on a case.

The running joke of this series was that Dollar shamelessly padded his expense account. Each scene was introduced by Dollar reciting a line item from his expense report, followed by a segue to the action. Multiply by ten to get today's prices.

"The Silent Queen Matter" was a five-part episode written by Adrian Gendot and aired in the last week of 1956 October. An arcade operator Bernard Slade in Venice, California, had been murdered. "*Three slugs from a 38. One would have been enough.*", said police detective Sgt Mackay.

During his life, Slade never let anyone inside his apartment except an old friend, a preacher. Everyone said Slade didn't have an enemy in the world but obviously there was one person who didn't like him.

Slade's apartment was plastered with photographs of Mavis Gayle, who had been a movie star in the silent movie era. The killer scrawled giant question marks in red crayon over the photographs. Several other photographs, subject unknown, were missing.

The deceased named Gayle as the beneficiary of his $25,000 insurance policy but she denied knowing Slade. Johnny Dollar was sent to investigate. He visited the funeral parlour. Gayle arrived for the visitation and promptly fainted.

Upon being revived, she said the dead man was her husband Tom Standford. He had supposedly been killed 27 years ago in a hunting accident that blew his face off with a shotgun.

Mackay and Dollar hypothesized that Standford had been targeted by a hit man but turned the tables on him. Dollar went sleuthing in the movie colony and talked to people who knew Standford back when.

The gossip was that the Gayle-Standford marriage had been a rocky one. He was a drinking man and a womanizer. Her career was better than his, but talkies killed both their careers.

Mackay picked up reports that Gayle had been seen around Slade's apartment. Dollar, meanwhile, was looking for the men who had been on the hunting trip. Some were failed silent screen actors. A plethora of names and characters from the silent film era were dredged up.

Among others, Dollar found out the preacher's name, Jarvis Pocket, once a silent film director. The preacher had witnessed the shotgun incident and kept the secret of the hit man's identity.

Joseph Fallon was the hit man, said Pocket. Fallon was Gayle's chauffeur at the time of the death. Pocket identified the missing photographs as Gayle and Standford posing together. Lots of to-ing and fro-ing about town.

Pocket was the next fatality. Dollar was slugged unconscious as per standard detective fiction. Recovering consciousness, Dollar suspected the murderer was trying some blackmail. More zigzags around town until the twist revealed the two murderers.

Dollar got himself into a gunpoint confrontation. One killer shot the other, Dollar jumped him, and the State of California would increase the death toll by one more after the trial and conviction. Total expenses were $436.25.

The Dead Past.

THE JEAN HARLOW BOMBSHELL (2019) by Mollie Cox Bryan (a distant relative of Harlow) began with the sudden death of author Justine Turner from a poisoned cup of tea. She had been writing a biography of Jean Harlow, which her assistant Charlotte Donovan now had to complete.

That brought her into contact with stalkers, fans who were really fanatic, online trollers, and a Jean Harlow impersonator. There was a rival author who also wanted to write a Harlow biography and resented the competition.

The plot progressed with a mixture of infodumps and Marpleing. Since Harlow has faded from public memory, and only diehard fans watch her movies (she died in 1937), there were snippets about her short career. She died at age 26.

The alarums progressed. The impersonator became the second victim. Every other character was a sociopath. Finally there was the usual gunpoint confrontation, except this time Miss Marple had the gun and wounded the murderer.

AND THE KILLER IS ... (2020) by G.A. McKevett (pseudonym of Sonja Massie) was a novel in a series about Savannah Reid, a private investigator originally from Georgia but now established in southern California.

Reid and her police detective husband were called to the decrepit mansion of 90-year-old silent screen actress Lucinda Faraday. She had been strangled amidst the garbage and clutter that filled the mansion, the kind that only a hoarder would accumulate. The killer had posed her like a pin-up photo she did in the early days of the movie industry.

Her next of kin was great-grandson Geoffrey Faraday, who didn't mourn her. She had been a cranky old lady with lots of enemies. He had done time for human trafficking and thus became a suspect.

A chase developed for Lucinda's will. Her previous will left all to Geoffrey but she disowned him after his conviction. The new will left everything to her old housekeeper Mary. Back in the day, Lucinda had many wild parties in her mansion, the detritus of which Mary and the police had to clean up the next morning.

The scandalous side of the silent movie era surfaced through diaries and papers found in Lucinda's hoard. Coathanger abortions, sex with underage girls, judges on the take, drugs, rape, all the accouterments of Hollywood life. Those were the days. I'm glad those things don't happen anymore.

Reid found the murderer, the least likely suspect, who was hoping to finance a better lifestyle by blackmail and murder.

Roll 'Em.

THE WHISTLER was an old-time radio anthology series that aired from 1942 to 1955. It was not a mystery show. Both the narrator and the protagonist explained everything to the listener as a perfect crime was plotted and carried out. The criminal would gloat after the crime and get in a few bwah-ha!-ha!s.

After the final commercial, the epilogue would reveal some detail the criminal overlooked that tripped him up. It was for the listener to keep track of the little details, discard the red herrings, then predict what the twist ending would be.

"Dark Moon" was written by John W. Hart and aired on 1947-11-19. Russell Benton was an actor just hired for a movie by producer Matthew Ellsworth. Benton had gone through a nasty divorce from Kathy and was looking for his big break.

He had a new girlfriend Laura who had connections in Hollywood. His good mood was ruined when Kathy called with the news that she had since married Ellsworth, who didn't know about her previous marriage to Benton. A shock to Benton, who immediately understood what she was doing.

He visited Kathy while Ellsworth was away in New York City rounding up finances for the movie. She said she wanted her boyfriend John Bradford to have the part, and threatened blackmail if Benton didn't quit the part.

He immediately began planning her murder. The plan was intricate, involving a star-studded party at his house, an alibi from his agent Jeff Harris, the murder of Kathy at her house, and a quick trip back to the party.

Ellsworth called from the airport with the bad news that Bradford got the part at the insistence of the financiers of the movie. The body was found, the police questioned Benton, and he thought he got away with it.

After a commercial for Signal gasoline, the twist came. Just as the detective was stepping out the door, Laura came up. Laura, unaware of what happened, told the officer that Kathy had phoned her and said she would be late to the party because she was meeting Benton at her house.

MADISON AVENUE SHOOT (2010) by Jessica Fletcher and Donald Bain was a cozy novel about Cabot Cove's murder magnet. Like many other cozy series, so many people had been murdered in the village that Jessica Fletcher had to go roving further afield lest her village become a ghost town. In this book, she went to New York City, where a few more murders would hardly be noticed.

Her nephew Grady was an accountant in the city, working for a film production company. They were producing commercials for a credit card bank. Grady got his aunt a part in one of the commercials.

There were enough obnoxious executives and crew that the first part of the novel will keep the reader guessing who would be Victim #1. That honour finally went to Betsy Archibald, a scout from the talent agency. Fletcher found her dead in the props storage.

Most upsetting. Not Betsy's murder, for all agreed she had it coming, but because police cordoned off the filming site, idling the crew. That would play hell with the budget. Dead people are so inconvenient.

Quicker than anyone could say "Where's Jessica Fletcher?" she was already in action. The police chose Grady as the prime suspect, so away she went. Her interrogations could match any third-degree grilling the police could do.

After much to-ing and fro-ing about the site, Fletcher held a J'accuse! meeting. The death was accidental, happening as the killer squabbled with Betsy about personal matters. No mention about whether or not the credit card company decided to keep the commercial with Fletcher in it.

DEATH BAKES A PECAN PIE (2018) by Livia J. Washburn was a novel in a cozy series about Phyllis Newsom of Weatherford, Texas. She had established a reputation as a Miss Marple. So much so that her friend Eve Turner wrote a roman a clef novel about her, which sold to a Hollywood studio. Only the names were changed to protect the guilty.

Evidently the studio executives didn't think things through, for they sent a crew to Weatherford for location scenes. The Harvest Festival was nigh, which the production company thought would provide good colour.

Newsom was competing in the pie contest with her Old Fashioned Pecan Pie (recipe in the appendix). She also supplied a pecan pie for the movie set. The experienced cozy reader will sit back and watch the slow-motion train wreck.

The cast and crew were the usual collection of prima donas, constantly squabbling and throwing hissy fits. The director Lawrence Fremont was the hissiest of them all. As a result, no one mourned him when he didn't just play the part of a corpse but was one in real death.

The Deppity Dawgs were called in. They had their hissy fit upon discovering that Newsom was part of the trouble. She had frequently made fools of them in the past and no doubt was about to do so again.

Since Fremont was such an obnoxious tyrant who offended everyone on the set, motive was not worth determining to find the murderer. The investigators, both police and Marple, concentrated on who had the opportunity.

A rich lode of back stories and feuds was mined. The autopsy revealed that someone had flavoured a slice of Newsom's pecan pie with cyanide. Fremont did love pies. For once the police didn't suspect Newsom since no one else had died after eating a slice of the pie.

In the denouement there was a revelation that Fremont had fathered a daughter with one of the actresses, who had never told him. She wanted to protect her daughter and did so.

There was the traditional gunpoint confrontation where the killer explained all the details instead of just shooting Newsom dead. No real danger to Newsom since she was booked for the series.

The recipes appendix, besides the pecan pie sans cyanide, comprised Texas Brisket, Flour Tortillas, Ranch Style Beans, Spinach Pomegranate Salad, Potato Omelet, Spicy Caramel Apple Pie, and Oat Nut Pancakes.

Also included was Texas Caviar, a finely diced mixture of onions, bell peppers, jalapenos, and various other ingredients. No fish eggs but guaranteed to clean out your intestines.

Behind The Scenes.

BLOTTO, TWINKS, AND THE STARS OF THE SILVER SCREEN (2017) by Simon Brett was a humourous novel set in the late 1920s. Devereux Lyminster was a redundant son of Tawcester Towers, the younger brother of the Duke of Tawcester, and was known as Blotto. Not an intellectual but handsome and a dashed good cricket player.

His sister Honoria, aka Twinks, was a beautiful woman, reasonably intelligent, and practical. Manor houses don't come cheap, and their plumbing is always in an uproar. She was looking for a rich husband who would help with the cost of upkeep of Tawcester Towers.

Blotto was a great fan of western movies. (It must be remembered this was the silent film era.) When he was invited to Hollywood, he accepted at once, hoping to renew acquaintance with starlet Mimsy La Pim. He had briefly romanced her in the south of France several years ago, but she wanted to be a Hollywood star, not arm candy for a second son in a drafty old manor house.

There was a colony of English actors in Hollywood, who had trouble finding good cricket players. They asked him to come along as part of a team from England to play a few friendly games.

Between an English winter and California sunshine, the decision was an easy one to make. Twinks came along in search of a rich actor to wed and drag back to England in the bonds of matrimony and finance. Accompanying them was their chauffeur Corky Froggett, plus their Lagonda limousine, which had a secret compartment for smuggling in either direction.

The trio arrived in Hollywood safe and sound. The place was undergoing a sea change because talkies had just arrived, which dated this novel to about 1928. The first talkie was released in 1927, and by 1930, silent films were extinct. Famous actors who had squeaky voices or thick foreign accents found their careers terminated.

J. Winthrop Stukes was the head honcho of the English colony. Fortunately he had a resonant baritone voice, so his career was safe. Blotto was perturbed to learn that cricket matches over there were confined to one day, rather than four or five days, because Saturday was the only day actors had free.

The White Knights (Stukes' team) played the Trojan Horses (a movie currently being filmed by that name and whose players all had parts in it). The after-game party was marred when the hostess Mimsy La Pim was kidnapped from her mansion.

A ransom note left on a kitchen table verified the deed. As local newspaper headlines screamed: "Moll Mimsy Home Patch Snatch In Smarty Party Glitz Blitz". Well, it made sense in Hollywood.

Brother and sister went sleuthing. Twinks found herself in the movie as Helen of Troy. She was thankful she wasn't cast as Medusa. That actress had to wear a wig with live snakes tied on it. Stukes played Methuselah. Yes, yes, not mentioned in THE ILIAD but this was Hollywood.

The alarums involved the Cosa Nostra, whose minions were insulted by being called the Mafia. Trouble and strife on and off the set. Blotto managed to rescue La Pim, only to discover the whole thing had been staged as a publicity stunt to boost her career.

Off for another cricket game before returning to the shores of Albion. Meanwhile, production of the Trojan Horse movie continued. The producer was far over budget but that didn't stop him from casting Hannibal and his elephants for the siege scenes. Who are you going to believe, Hollywood or Homer of Chios?

Based On A Story By ...

THE BIG BOOK OF REEL MURDERS (2019) is one of Otto Penzler's doorstop anthologies. He specializes in them. For him, 400 pages is a chapbook. This book was 1,181 pages with 59 stories.

The concept was that each of these stories was subsequently made into a movie. The movies are mostly 1930s to 1940s, most of which I've never seen and won't bother with.

Quite often, in the way of Hollywood, the movie title was the same as the book but there were some interesting variations. I knew Robert Bloch's connection with PSYCHO but wasn't aware his source story was "The Real Bad Friend". In that case, the movie producers did a better job with the title.

Sherlockians are familiar with Hollywood's insistence on either changing the title or else keeping the title and changing the plot. An example from this book was "The Five Orange Pips", which became the movie THE HOUSE OF FEAR, with only Holmes, Watson, and the pips retained from the story.

If you've watched a lot of old movies, then this book will be interesting to compare the source with the movie. However, the stories stand on their own, as indeed they were intended to, so they can be read without reference to the movies. You'll also get your arm and wrist exercise holding such a massive tome.

Agents.

THE ADVENTURES OF PHILIP MARLOWE was based on the character created by Raymond Chandler. It aired on radio from 1947 to 1951, changing networks in midstream. The series was slightly darker than most mystery shows, although never as dark as the noir novels upon which it was based.

"The Big Book" was written by Robert Mitchell and Eugene Levitt and aired on 1950-09-29. A middle-aged woman Jane Temple died from a bullet through her heart in a slum rooming house. Philip Marlowe was having lunch with friends in the police department when they got the call. He rode along with them. Nothing for him to do, so he left and went walking.

He was intercepted by an Italian cobbler Mr Nobella, who wanted to tell him some information about the case but didn't trust the police. Nobella said Temple's death was murder, not suicide. They had been friends.

She had given him a big scrapbook that assembled her life in clippings, photographs, and letters. He was to repair the covers with new leather. Temple had been a successful actress in England and the scrapbook reflected that. In 1928, her life abruptly changed.

The second half of the scrapbook recorded the career of Hollywood agent Jerome Larkey. There seemed to be no connection. Nobella asked Marlowe to find out why the change occurred. There was one clue, a newspaper clipping about an Englishman John Gordon who had been sent to prison for embezzlement from a theatre. The photo in the clipping matched Larkey.

Marlowe visited the man in his office but nothing much happened there. He did meet a character actor Elliott Munro who was also waiting to meet Larkey. That seemed to be a throwaway scene at the time.

Marlo made a second visit, this time to the Larkey mansion in Beverley Hills where he met the wife Vivian. He verbally sparred with her and shook her with an oblique reference to her husband's past.

He then sparred with Jerome. Elliott Munro arrived as Marlowe was leaving. Indeed. Marlowe went back to Nobella's shop for some real alarums, courtesy of Munro. He had been blackmailing Jerome via Temple.

Munro announced he was going to kill Marlowe but the actor couldn't resist a monologue before pulling the trigger. He never did fire the shot because Vivian did, arriving unexpectedly. She wasn't an actress and fired her gun immediately. "*That's the last benefit you'll ever play*", she said.

Marlowe said he would keep silent. Since Munro had a gun, Vivian and Marlowe were able to say self defence. Jerome had paid for his crime back in England. There was no need to punish him in his new life by ruining his reputation.

Reel Fantasies.

BOX OFFICE POISON (2013) by Phillipa Bornikova (pseudonym of Melinda Snodgrass) was a fantasy about Hollywood. Pause for the joke about how can you tell the difference?

Beautiful elves were getting all the good roles, so human actors were suing the studios for discrimination. The Screen Actors Guild was busy trying to keep the peace between humans, elves, vampires, and werewolves.

The protagonist was Linnet Ellery, a human lawyer working for a vampire law firm. She was appointed arbitrator and found herself inside a mess. Some sort of conspiracy was deliberately stirring up trouble between the species. She also had her own problems.

Lots of light humourous touches. Her law firm were a bunch of cheapskates who made her fly in the steerage section instead of first-class. She had to deal with paparazzi and California food such as Kobe beef hotdogs.

Visiting a movie set, she quickly learned the distinction between below-the-line people, day players, and, at the very bottom, script writers. The elves, who called themselves Alfar, were rapidly infiltrating the industry.

The grand finale was at the Academy Awards with a fight between the elves and the Human First adherents. The riot, and there was one, was settled the American way with guns and mobs.

All told, a night to remember. The novel read quite well with much sly humour. Recommended.

FREE STUFF ONLINE

You will have noticed that I provide sources for the pdfs and mp3s reviewed in this zine. Here is a summary of some good resources, all of which are free.

In particular, the "Seen In The Literature" column cites only peer-reviewed papers. For topics such as climate change or social media effects, more people should be reading these papers instead of blogs where commentators confuse their opinions as being facts.

For scientific papers for which free pdfs are available, the easiest method is to Google either the title of the paper or its digital object identifier, the phrase beginning with doi.org. Most papers are behind a paywall, so unless you have access to a university library computer, you can only get the abstract. However, the abstract is often enough to understand the gist of the article.

For zines, www.efanzines.com provides current pdf zines as well as some older ones. A club called Fanac at www.fanac.org does the reverse; they provide thousands of old zines from the 1930s to date, with a few current zines. Both sites have a free email notification service you can subscribe to.

The Old Time Radio Researchers have thousands of old-time radio shows (1930s to 1950s) covering all the genres, such as comedy, science fiction, fantasy, and mystery. Visit www.otrr.org/OTRRLibrary.

They also publish a bulletin OLD RADIO TIMES, available at www.otrr.org/?c=times, with a free email notification service. Don't pay money for audio books and listen to a droning voice when you can listen for free to full-cast shows such as Jack Benny or Inner Sanctum from the OTRR.

For pulp fiction magazines from all genres, visit www.archive.org/details/pulpmagazinearchive?&sort=-downloads&page=2
Books in the public domain are free from www.gutenberg.org

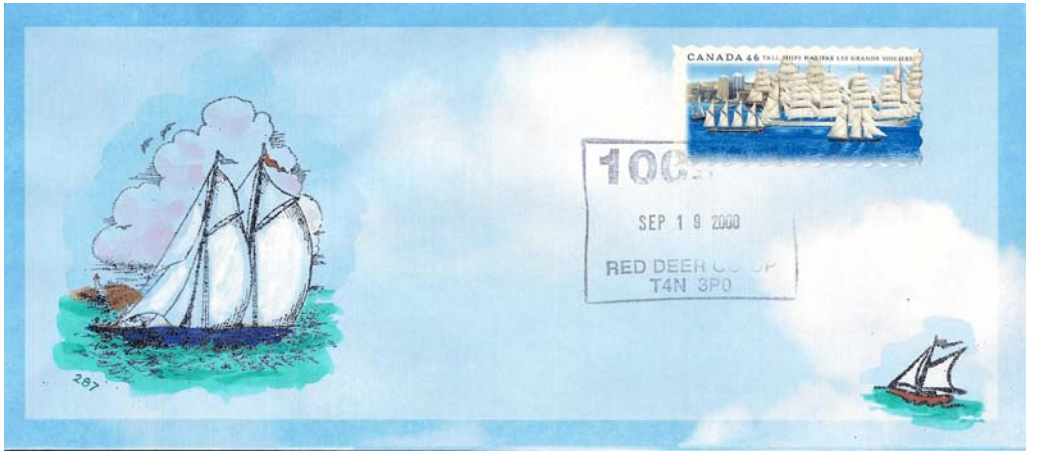
MAIL ART OF BETTY SPEIRS: PART 14
by Dale Speirs

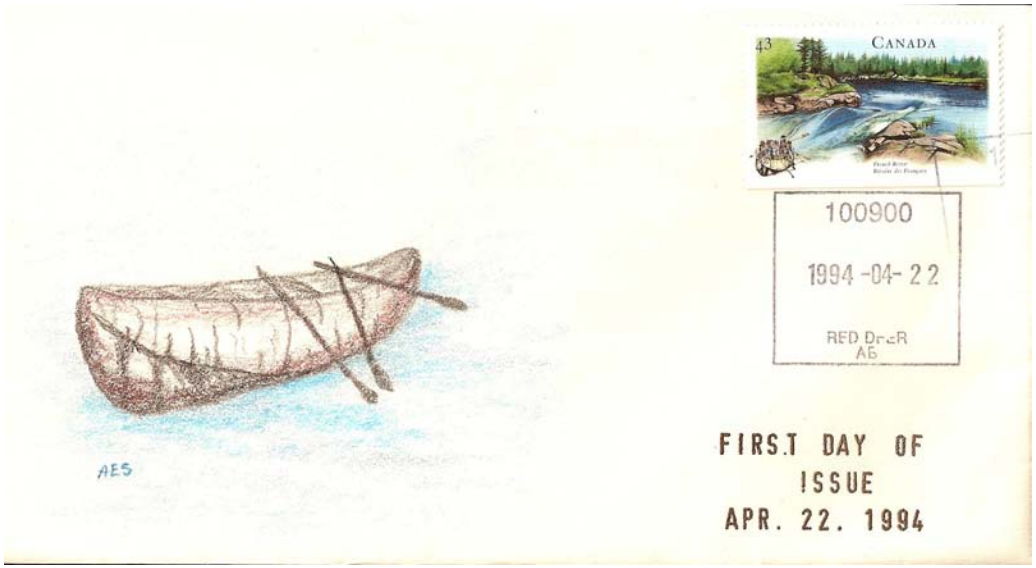
[Parts 1 to 13 appeared in OPUNTIAs #511, 514, 517, 519, 521, 523 to 530.]

My parents were both flatlanders from homesteader families on the Canadian prairies. No one ever went to sea. It is possible that someone in the family might have been in a rowboat or canoe but I doubt it.

I never set foot into a canoe until I was in my 40s as District Foreman in charge of the Bowness Park district. The main depot was in the park, which is an island. Occasionally, when I needed to relax, I would take a canoe out on the channel or lagoon as an official inspection tour. One of the perks of the job.

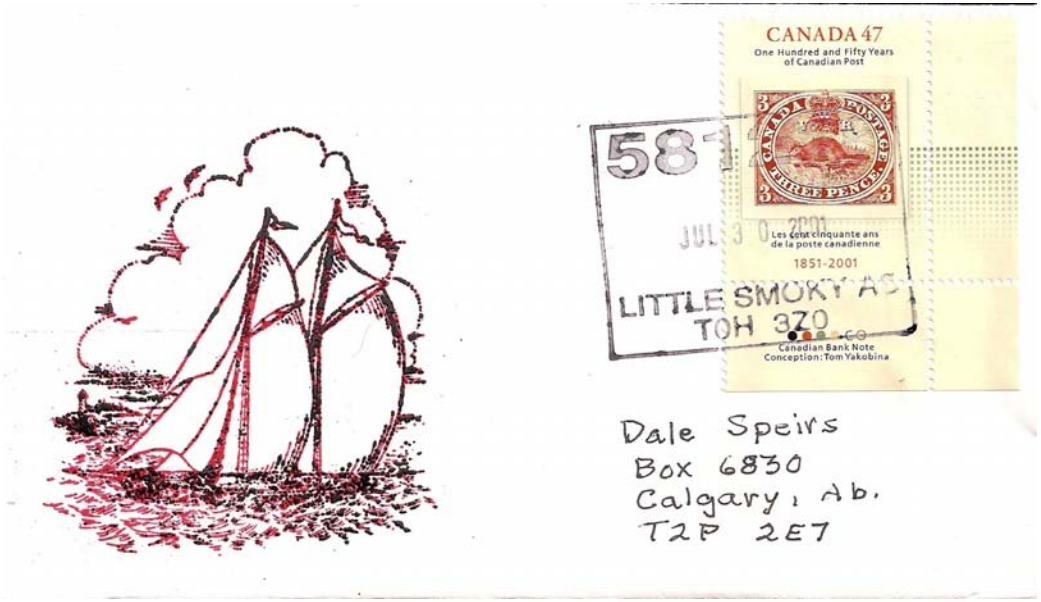
I'll watch dragon boats from the shore but that's as far as I'll go. Some of Betty's mail art covers had nautical themes, presented herewith.



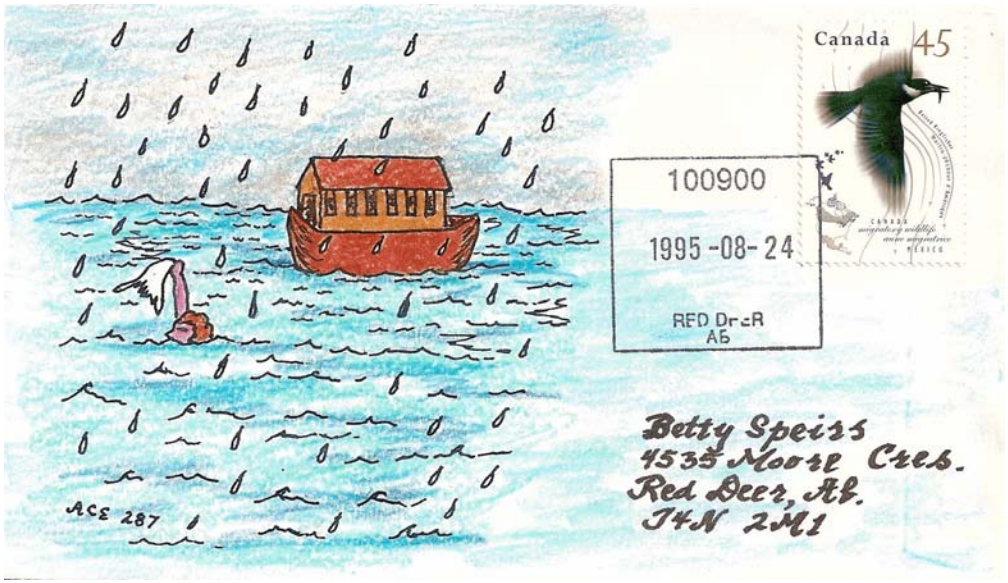


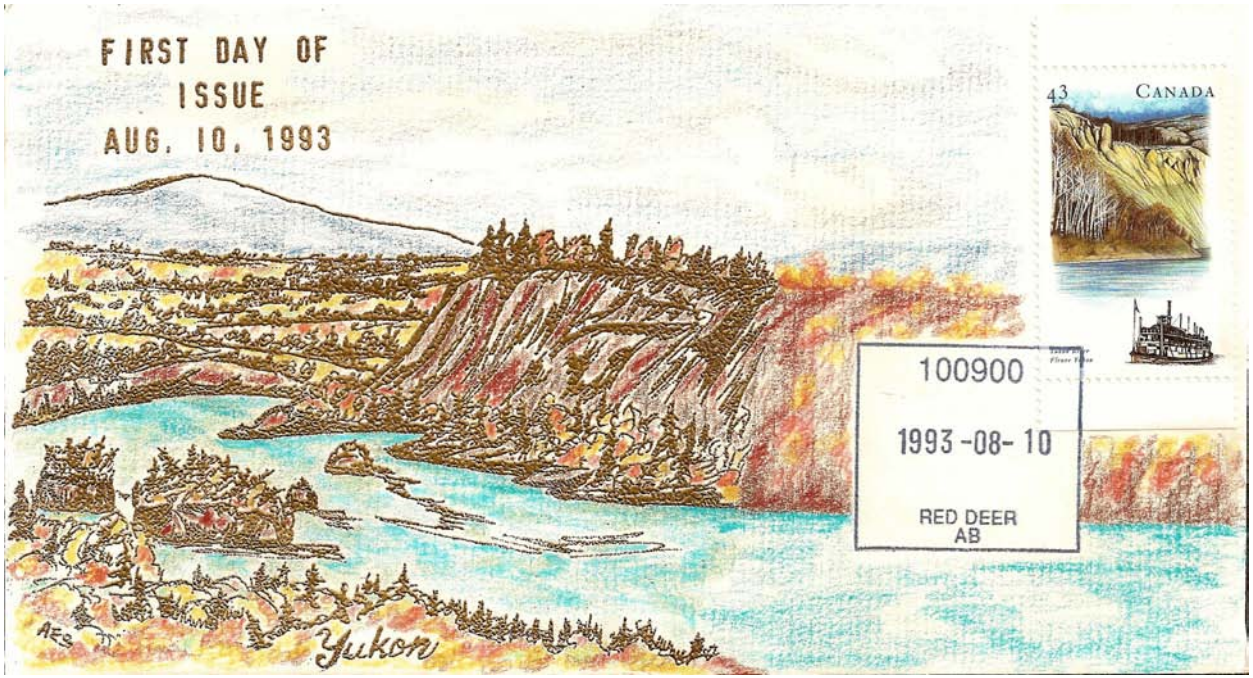
Below: This cover was postmarked in Little Smoky River, Alberta, where Betty's younger brother lived. I assume she was up there visiting him. The village is in the boondocks of northwestern Alberta. Uncle Brian was in petroleum, servicing pump jacks and drill rigs, which is why he lived up there.

Bottom: My parents visited Yukon and Northwest Territories several times. The family albums have photos of the old sternwheelers.



Below: Without bothering to look it up, I'm guessing 1995 was a wet summer in Red Deer.





LETTERS TO THE EDITOR

[Editor's remarks in square brackets. Please include your name and town when sending a comment. Email to opuntia57@hotmail.com]

FROM: Lloyd Penney 2022-07-20
Etobicoke, Ontario

OPUNTIA #527: [Re: Calgary Plus 15 pedestrian network] A second floor pedestrian network could definitely work here in Toronto. Much of our connected pedestrian network is underground, while the newest parts of it are actually on ground level.

We fail to appreciate wild flowers properly. Now, we don't have them, and we miss them. Instead, we have parks like lawns, and that is a poor substitute.

[I grow wildflowers in my yard prairie style, that is, they are planted directly into the turf instead of being in flower beds. Takes longer to mow the lawn because I have to zigzag but the effect is quite nice and I have had compliments from my neighbours. The warm July this year got the flowers blooming ahead of schedule, so I fear there may be nothing left for August.]

We talk with the seniors at the pharmacy we get our prescriptions from. There may be a fifth shot available to us in October, but as you say, COVID-19 may stay with us permanently, so the vaccine for it may simply be added to our regular flu shot. The province of Ontario has released the fourth shot to all adults.

[The Alberta Ministry of Health announced the fourth vaccination was available, so I got mine on July 27.]

We did get to the Forest City Comic Con in London, where we had great sales, and a week after that, the Sci-Fantasy Street Festival in the village of Elmvale, north of Toronto. Great sales there again.

This past weekend, as I write, was Anime North, the annual huge anime convention a five-minute drive away from us. All I can say is that it was the biggest Anime North ever. Saleswise, it was our best Anime North ever, and the best weekend sales of any convention we'd been at.

[People want to be out and about again. The 2022 Calgary Stampede rodeo had 1.2 million paid attendance over ten days, just below the 2019 attendance, which was the last normal Stampede. The beautiful weather helped but there was no doubt we were all happy to see normal times again.]

OPUNTIA #528: Our Canada Day was spent travelling up to the city of Barrie to spend an evening at a local hotel, and be ready to get in to our vending slot in the parking lot of the community centre of the village of Elmvale, for the Sci-Fantasy Street Festival.

There were fireworks we could see from our room, and early in the morning of July 2, we hit the road to Elmvale and another fun day. It was cut short, though, as winds cropped up, and started blowing merchandise off the gathered tables.

Of all the detective series of books, I think I read a number of The Saint books by Leslie Charteris. The books were interesting, but for some reason, the television series with Roger Moore in it seemed even better. There are few series I'd like to see again, but I would like to see Simon Templar again to see if the episodes have stood the test of time.

[I have a number of The Saint DVDs, which I inherited from my uncle's estate. They were fair to middling but I never really liked Roger Moore, either as The Saint or James Bond. He always came off smirking too much.]

OPUNTIA #529: [Re: Stampede parade floats] You can always count on the town of Vulcan, Alberta. Trek is their bread and butter.

[It has to be. Vulcan is out in the flatlands with no natural parks or other tourist sites. Nothing but wheat fields and rangeland as far as the human eye can see.]

I did see some Ghostbusters at the anime con, but I did not know there was the Alberta Ghostbusters.

[Apropos of nothing, I was just suddenly thinking that I haven't seen any steampunk groups out and about this year. Perhaps they'll be at the Beakerhead festival this September, which is a natural for them.]

The loan document on page 13 looks quite historical, and I have never seen the two-cent war tax stamp at the bottom.

[My mother was the family historian and I in turn inherited the documents such as promissory notes and cancelled cheques with war tax revenue stamps on them.]

What issues of the Tesseracts books I have, I have enjoyed, but I have also expressed an interest in editing an issue. I need to check to see if this will resume as an annual issue. I still have some hope of editing an issue.

[Now is the time to contact them. I'm sure they want to revive the series post-pandemic.]

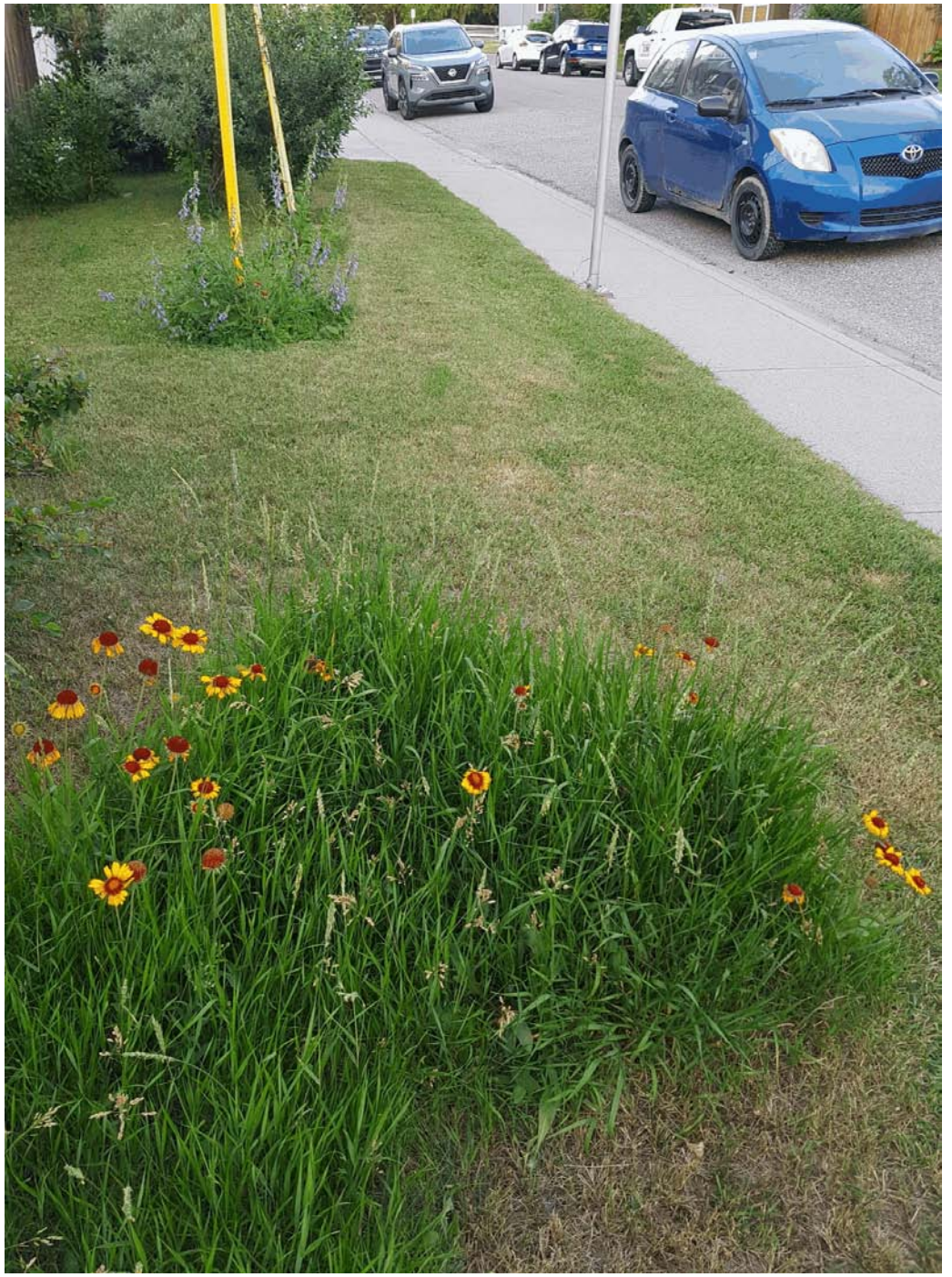
OPUNTIA #530: Did you see any politicians flipping pancakes during the Stampede celebrations? I know Prime Minister Justin Trudeau and Alberta Premier Jason Kenney were there, and I'd be surprised if that's all there were.

[I didn't see any of them personally this year, although I have seen Trudeau up close at a past Stampede. The party leaders were all here this year though, both federal and provincial. Also in abundance were the candidates for both the federal and provincial Tory leadership races.]

[The Calgary Stampede is a must-attend event for all the politicians but I suspect they would attend anyway because everyone has so much fun partying in the streets. The politicians with young children such as Trudeau commonly bring their families.]

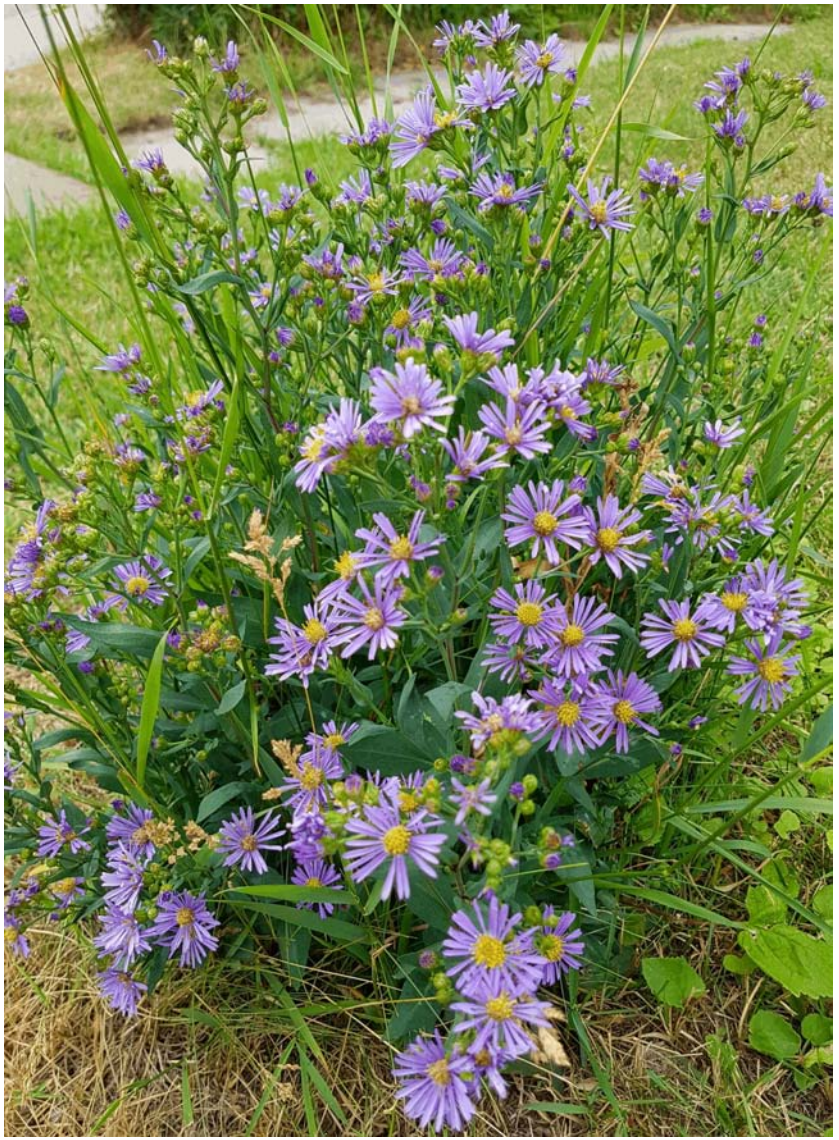
PRAIRIE GARDENING AT CHEZ OPUNTIA
photos by Dale Speirs

Apropos of Lloyd's letter, I went outside and photographed my front lawn on July 20 to show what I mean by prairie gardening. At right is the front boulevard. The yellow and red daisies are *Gaillardia aristata*, a native wildflower of southern Alberta. The purple clumps in the background around the power pole guy wires are *Campanula rapunculoides*, a garden species.



At left: The white flower spikes in lower right of photo are *Yucca glauca*, native to the desert of southeastern Alberta. And yes, Alberta does have deserts. Lots of *Gaillardia* in bloom.

Below: Native purple asters.



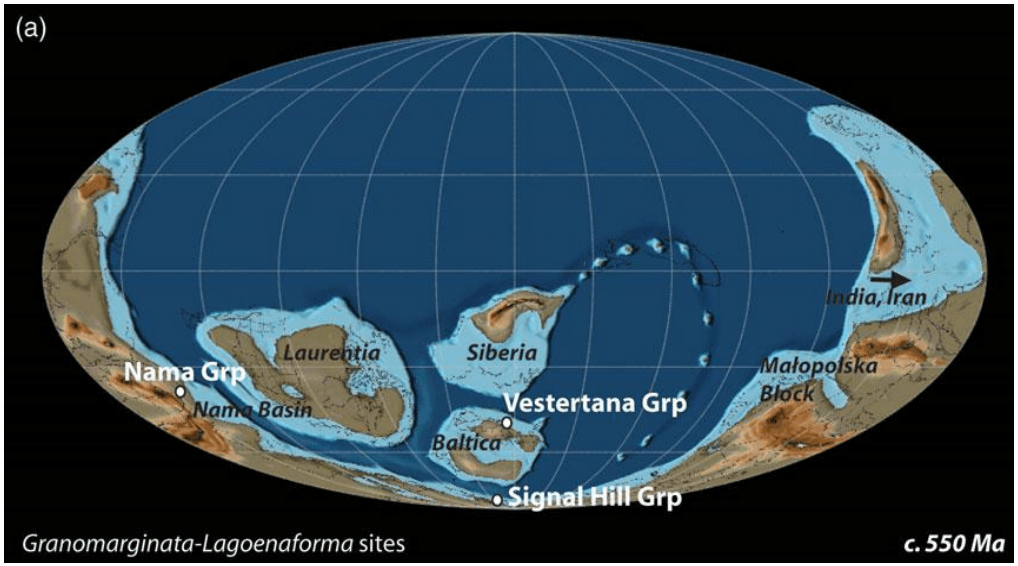
SEEN IN THE LITERATURE

Paleobiology: Precambrian.

[The Precambrian is when life made the transition from single cells or clumps of cells to organized multicellular life. The final period of the Precambrian was the Ediacaran, from 600 to 542 megayears ago.]

[The fauna of this period was wiped out by the origin of predators during the following Cambrian period. Prior to predators, organisms were soft bodied, while the Cambrian had a burst of speciation of armoured or shelled species.]

[This map shows Earth as it looked during the Ediacaran and is taken from the paper by Agic et al quoted further on.]



Hoyal Cuthill, J.F. (2022) **Ediacaran survivors in the Cambrian: suspicions, denials, and a smoking gun.** GEOLOGICAL MAGAZINE 159:doi.org/10.1017/S0016756821001333 (available as a free pdf)

Author's abstract: *There has been a tendency to dismiss reported Ediacaran holdovers in favour of effective extinction around the Cambrian boundary. Here, focusing on the classically Ediacaran frondose biota (Petalonamae), I suggest four main reasons why proposed Ediacaran survivors have previously been denied the acceptance they deserve: denials based on mistaken identity, doppelgängers, a last gasp, or dead clades walking.*

I then point to the lower Cambrian species Stromatoveris psygmoglena as a key example which simultaneously meets these objections. Collectively, Cambrian survivors are a 'smoking gun' showing that extinction of the classically Ediacaran frondose biota did not occur until at least 30 megayears after the end of the Ediacaran period, registered by phylogenetic petalonamid Thaumaptilon from the Burgess Shale.

Therefore, to paraphrase Mark Twain, reports of their earlier demise have been greatly exaggerated. Causes of their ultimate extinction should instead be sought in their total range and diversity dynamics. Overall, the Ediacaran-Cambrian transition shows extremely low numbers of recorded survivors, but diversity dynamics are dominated by the Cambrian explosion.

In this context, recorded occurrences for the classically Ediacaran frondose biota are compatible with at least two extinction events, one within a possible mass extinction near the Cambrian boundary, and later, their ultimate extinction in, or after, the middle Cambrian (Miaolingian Series, Wuliuan Stage).

There is, however, no correlative basis for a causal link between the Cambrian transition and the effective or final demise of the classically Ediacaran soft-bodied biota.

Runnegar, B. (2022) **Following the logic behind biological interpretations of the Ediacaran biotas.** GEOLOGICAL MAGAZINE 159:doi.org/10.1017/S0016756821000443 (available as a free pdf)

Author's abstract: *For almost 150 years, megascopic structures in siliciclastic sequences of terminal Precambrian age have been frustratingly difficult to characterize and classify. As with all other areas of human knowledge, progress with exploration, documentation and understanding is growing at an exponential rate.*

Nevertheless, there is much to be learned from following the evolution of the logic behind the biological interpretations of these enigmatic fossils. Here, I review the history of discovery as well as some long-established core members of widely recognized clades that are still difficult to graft on to the tree of life.

These 'orphan plesions' occupy roles that were once held by famous former Problematica, such as archaeocyaths, graptolites and rudist bivalves. In some of those cases, taxonomic enlightenment was brought about by the discovery of new characters; in others it required a better knowledge of their living counterparts. Can we use these approaches to rescue the Ediacaran orphans?

Five taxa that are examined in this context are Arborea (Arboreomorpha), Dickinsonia (Dickinsoniomorpha), Pteridinium plus Ernietta (Erniettomorpha) and Kimberella (Bilateria?). With the possible exception of Dickinsonia, all of these organisms may be coelenterate grade eumetazoans.

[Images are from this paper and show Ediacaran fossil deposit at Nilpena National Heritage Ediacaran fossil reserve in Namibia.]

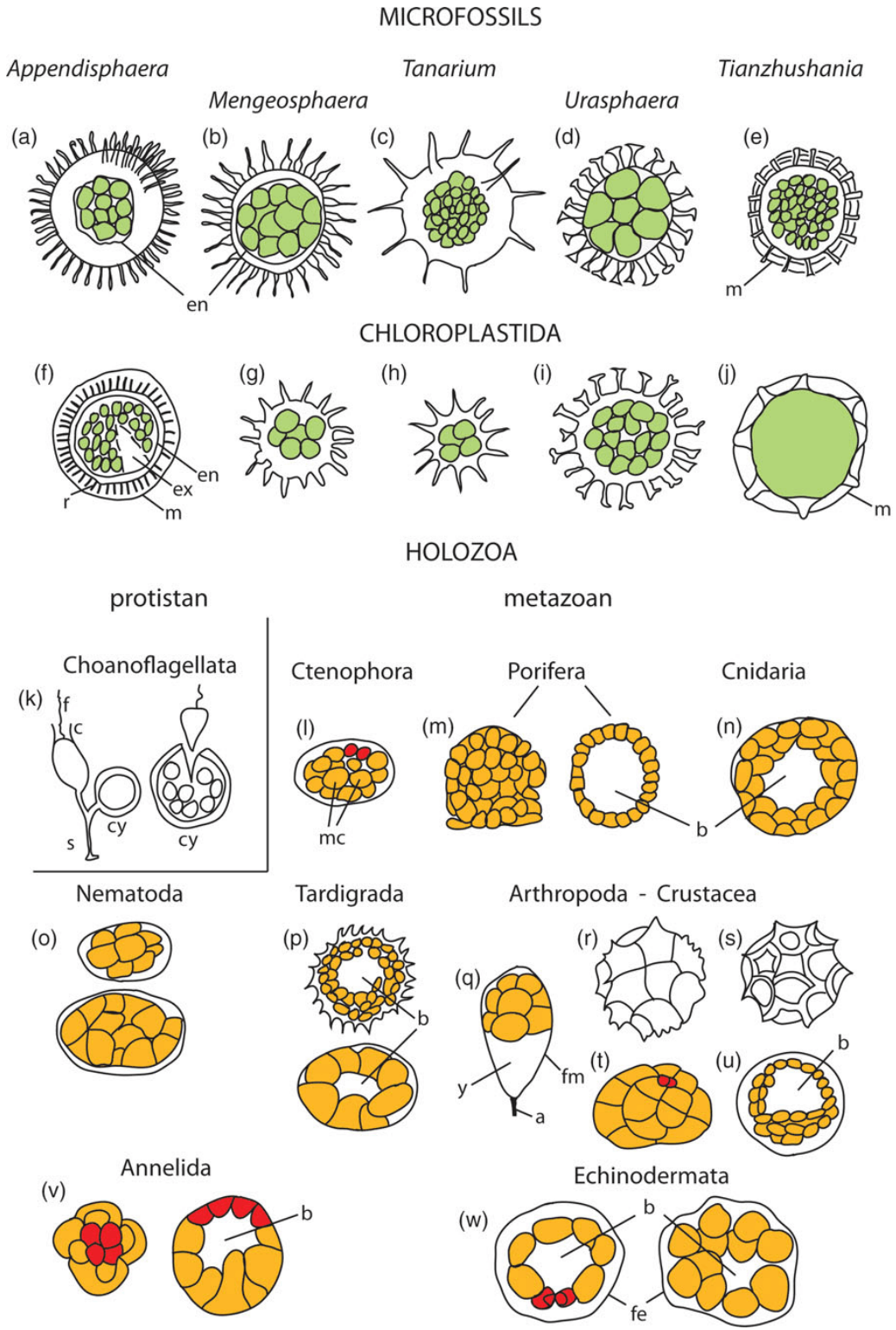
Moczydowska, M., and P. Liu (2022) **Ediacaran algal cysts from the Doushantuo Formation, South China.** GEOLOGICAL MAGAZINE 159:doi.org/10.1017/S0016756820001405 (available as a free pdf)

Authors' abstract: *Early-middle Ediacaran organic-walled microfossils from the Doushantuo Formation studied in several sections in the Yangtze Gorges area, South China, show ornamented cyst-like vesicles of very high diversity.*

These microfossils are diagenetically permineralized and observed in petrographic thin-sections of chert nodules. Exquisitely preserved specimens belonging to seven species of Appendisphaera, Mengeosphaera, Tanarium, Urasphaera and Tianzhushania contain either single or multiple spheroidal internal bodies inside the vesicles.

These structures indicate reproductive stages, endocyst and dividing cells, respectively, and are preserved at early to late ontogenetic stages in the same taxa. This new evidence supports the algal affiliations for the studied taxa and refutes previous suggestions of Tianzhushania being animal embryo or holozoan.

The first record of a late developmental stage of a completely preserved specimen of T. spinosa observed in thin-section demonstrates the interior of vesicles with clusters of identical cells but without any cavity that is diagnostic for recognizing algal cysts vs animal diapause cysts.



Various lines of evidence to infer biological affinities of these microfossils, morphology, reproductive characters, spatial arrangement of cells, and biochemical properties of the vesicle wall, are collectively characteristic of algal clades.

Recognizing the biological affinities of these microfossils is key to understanding whether animals capable of producing such morphologically complex diapause cysts had an early Ediacaran fossil record (633 to 610 megayears ago), or the microfossils were non-animal holozoans or algae as argued herein for Tianzhushania spinosa and other studied microfossils.

[Images are from this paper. There were numerous microphotographs of the actual fossils.]

Agic, H., et al (2022) **Late Ediacaran occurrences of the organic-walled microfossils *Granomarginata* and flask-shaped *Lagoenaforma collaris* gen. et sp. nov.** GEOLOGICAL MAGAZINE 159:doi.org/10.1017/S0016756821001096 (available as a free pdf)

Authors' abstract: *New occurrences of flask-shaped and envelope-bearing microfossils, including the predominantly Cambrian taxon Granomarginata, are reported from new localities, as well as from earlier in time (Ediacaran) than previously known. The stratigraphic range of Granomarginata extends into the Cambrian System, where it had a cosmopolitan distribution.*

This newly reported Ediacaran record includes areas from Norway (Baltica), Newfoundland (Avalonia) and Namibia (adjacent to the Kalahari Craton), and puts the oldest global occurrence of Granomarginata in the Indreelva Member (< 563 megayears ago) of the Stáhpogieddi Formation on the Digermulen Peninsula, Arctic Norway.

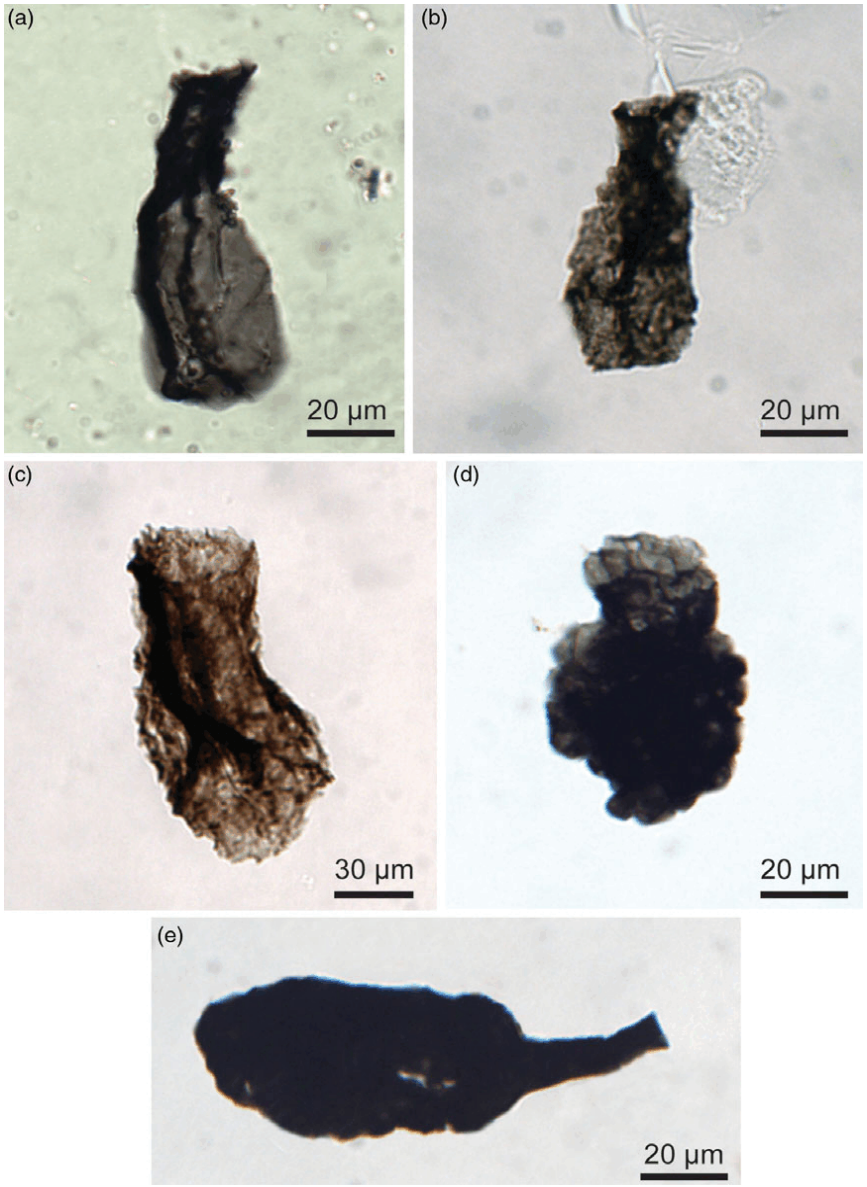
Although Granomarginata is rare within the assemblage, these new occurrences together with previously reported occurrences from India and Poland, suggest a potentially widespread palaeogeographic distribution of Granomarginata through the middle-late Ediacaran interval.

A new flask-shaped microfossil Lagoenaforma collaris gen. et sp. nov. is also reported in horizons containing Granomarginata from the Stáhpogieddi Formation in Norway and the Dabis Formation in Namibia, and flask-shaped

fossils are also found in the Gibbett Hill Formation in Newfoundland. The Granomarginata-Lagoenaforma association, in addition to a low-diversity organic-walled microfossil assemblage, occurs in the strata postdating the Shuramcarbon isotope excursion, and may eventually be of use in terminal Ediacaran biostratigraphy.

These older occurrences of Granomarginata add to a growing record of body fossil taxa spanning the Ediacaran-Cambrian boundary.

[Images show *Lagoenaforma collaris* from various localities.]



Paleobiology: Extinctions.

Cermeño, P., et al (2022) **Post-extinction recovery of the Phanerozoic oceans and biodiversity hotspots.** NATURE 607:doi.org/10.1038/s41586-022-04932-6 (available as a free pdf)

Authors' abstract: *The fossil record of marine invertebrates has long fuelled the debate as to whether or not there are limits to global diversity in the sea. Ecological theory states that, as diversity grows and ecological niches are filled, the strengthening of biological interactions imposes limits on diversity.*

However, the extent to which biological interactions have constrained the growth of diversity over evolutionary time remains an open question. Here we present a regional diversification model that reproduces the main Phanerozoic eon trends in the global diversity of marine invertebrates after imposing mass extinctions.

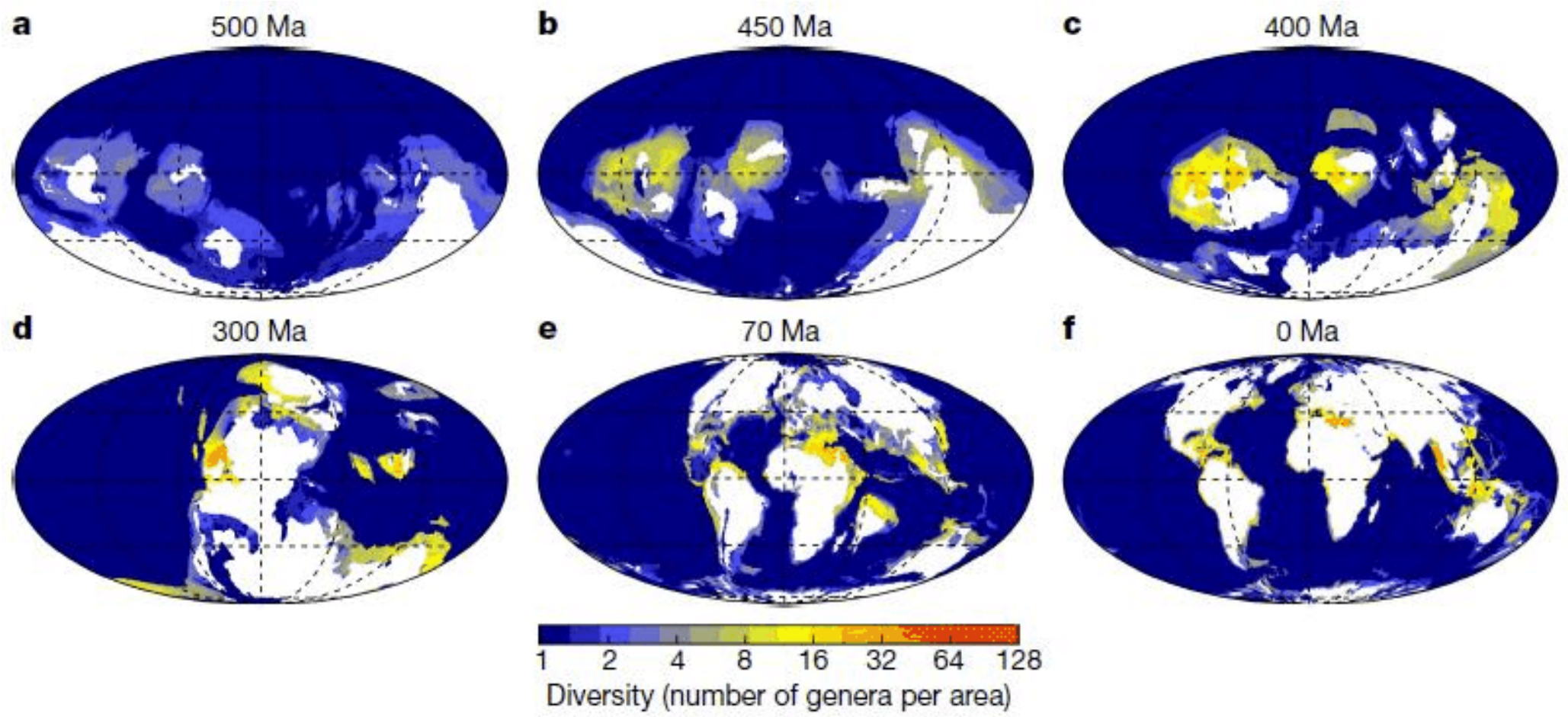
We find that the dynamics of global diversity are best described by a diversification model that operates widely within the exponential growth regime of a logistic function.

A spatially resolved analysis of the ratio of diversity to carrying capacity reveals that less than 2% of the global flooded continental area throughout the Phanerozoic exhibits diversity levels approaching ecological saturation.

We attribute the overall increase in global diversity during the Late Mesozoic and Cenozoic eras to the development of diversity hotspots under prolonged conditions of Earth system stability and maximum continental fragmentation.

We call this the 'diversity hotspots hypothesis', which we propose as a non-mutually exclusive alternative to the hypothesis that the Mesozoic marine revolution led this macroevolutionary trend.

The question of whether or not there is an equilibrium diversity that the biota, or portions of the biota, cannot exceed has led to decades of debate between those who think that there is a limit to the global diversity that the Earth can carry (that is, a carrying capacity) and those who think that the biosphere is so far from the equilibrium diversity (that is, its carrying capacity) that we can ignore the existence of any limit.



This question has traditionally been addressed by examining the shape of global fossil diversity curves. For example, the Palaeozoic era plateau in marine invertebrate diversity is generally taken as strong evidence for the existence of ecological limits to further diversification.

However, as diversity varies considerably among geographical regions, and each geographical region has its own geological and environmental history, addressing this question requires simultaneously reconstructing the dynamics of regional diversity in both space and time.

The older the habitat, the longer the lineages have had to diversify and fill empty niches or explore new ones (that is, the exponential model).

Determining which diversification model best describes the dynamics of regional diversity is key to understanding the mechanisms that underlie biogeographical patterns and macroevolutionary trends.

However, the fossil record is biased by uneven geographical and stratigraphic sampling efforts and variation in the rock record available for sampling, hindering our ability to investigate the effect of geographical variability in evolutionary time and diversification rate.

[Images are from this paper.]

Mays, C., and S. McLoughlin (2022) **End-Permian burnout: The role of Permian–Triassic wildfires in extinction, carbon cycling, and environmental change in eastern Gondwana.** PALAIOS 37:doi.org/10.2110/palo.2021.051

[The greatest mass extinction in Earth history was at the end of the Permian era 251 megayears ago when 97% of all life died out because of flood lavas covering much of the planet and superheating it.]

Authors' abstract: *Wildfire has been implicated as a potential driver of deforestation and continental biodiversity loss during the end-Permian extinction event (EPE; ~252 megayears ago). However, it cannot be established whether wildfire activity was anomalous during the EPE without valid pre- and post-EPE baselines.*

Here, we assess the changes in wildfire activity in the high-latitude lowlands of eastern Gondwana by presenting new long-term, quantitative late Permian (Lopingian) to Early Triassic records of dispersed fossil charcoal and inertinite from sediments of the Sydney Basin, eastern Australia.

We also document little-transported fossil charcoal occurrences in middle to late Permian (Guadalupian to Lopingian) permineralized peats of the Lambert Graben, East Antarctica, and Sydney and Bowen basins, eastern Australia, indicating that even vegetation of consistently moist high-latitude settings was prone to regular fire events.

Our records show that wildfires were consistently prevalent through the Lopingian, but the EPE demonstrates a clear spike in activity. The relatively low charcoal and inertinite baseline for the Early Triassic is likely due in part to the lower vegetation density, which would have limited fire spread.

We review the evidence for middle Permian to Lower Triassic charcoal in the geosphere, and the impacts of wildfires on sedimentation processes and the evolution of landscapes. Moreover, we assess the evidence of continental extinction drivers during the EPE within eastern Australia, and critically evaluate the role of wildfires as a cause and consequence of ecosystem collapse.

The initial intensification of the fire regime during the EPE likely played a role in the initial loss of wetland carbon sinks, and contributed to increased greenhouse gas emissions and land and freshwater ecosystem changes. However, we conclude that elevated wildfire frequency was a short-lived phenomenon. Recurrent wildfire events were unlikely to be the direct cause of the subsequent long-term absence of peat-forming wetland vegetation, and the associated 'coal gap' of the Early Triassic.

Paleobiology: Various Critters.

Salamon, M.A., et al (2022) ***Ausichicrinites zelenskyyi* gen. et sp. nov., a first nearly complete feather star (Crinoidea) from the Upper Jurassic of Africa.** ROYAL SOCIETY OPEN SCIENCE 9:doi.org/10.1098/rsos.220345 (available as a free pdf)

[Crinoids, which still exist, are modular animals and quickly fall apart after death. To find a complete fossil specimen is very rare. This one was also growing back some of its arms after a predator attack. The species was named after the Ukrainian president, who knows something about predator attacks.]

Authors' abstract: *Fossil comatulids, referred to as feather stars, are mostly known from highly disarticulated specimens. A single isolated element (centrodorsal) has been the basis for taxonomic description of a vast majority of fossil comatulids.*

Here, we report a nearly complete, and thus extremely rare, comatulid from the Upper Jurassic (Tithonian) of the Blue Nile Basin in central western Ethiopia that provides a unique insight into the morphology of comatulid arms and cirri.

It is assigned to Ausichicrinites zelenskyyi gen. et sp. nov. and is the first Jurassic comatulid from the African continent. The new taxon shows some similarities with representatives of the Mesozoic Solanocrinitidae but also has close resemblance with the modern family Zygometridae, exclusively known from the Holocene of western Pacific and eastern Indian Oceans.

This morphologic similarity is considered to be due to convergence. The first example of pinnule regeneration in a fossil feather star is reported, which reinforces the hypothesis about the importance of predation in the evolution of these crinoids.

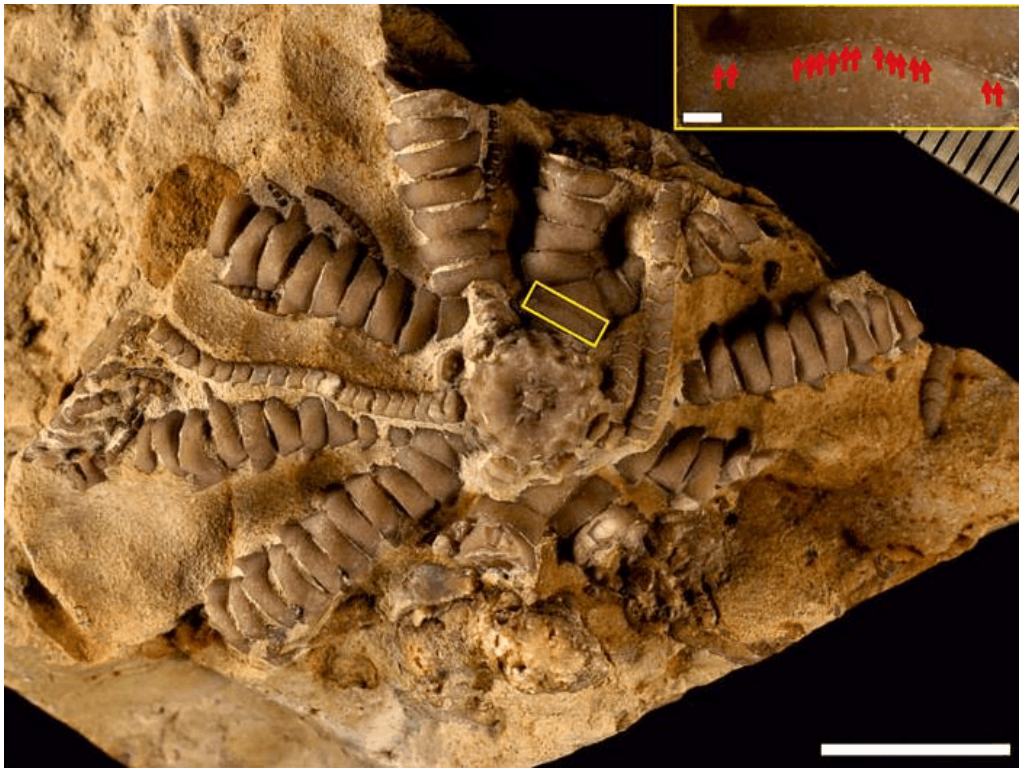
Comatulids, commonly known as feather stars, shed their stalks during ontogeny and display high mobility (through crawling and swimming), which

is regarded as a significant factor related to their success. They are also the only extant crinoid group that is globally distributed in both shallow and deep-water settings. The fossil record of comatulids dates back to the Late Triassic.

Of the known comatulid genera, most of the described records are based on a single and the most durable morphological element, the centrodorsal (and are rarely based on centrodorsal with attached basals and radials). This choice of a single ossicle is due to the fact that the comatulids are susceptible to post-mortem processes and thus, disarticulate very rapidly.

Type species. Ausichicrinites zelenskyyi gen. et sp. nov., by monotypy. Etymology. [Genus name] *In honour of Prof. William I. Ausich for his extraordinary output to the knowledge on fossil crinoids.* [species name] *In honour of Volodymyr Oleksandrovych Zelenskyy, the sixth and current president of Ukraine for his courage and bravery in defending free Ukraine.*

[Image of the fossil is from this paper.]



Cantalice, K.M., et al (2022) **Rising from the ashes: The biogeographic origins of modern coral reef fishes.** BIOSCIENCE 72:769-777 (available as a free pdf)

Authors' abstract: *During the excavation of Mayan tombs, little did the archaeologists know that the fossils they discovered in the tomb stones would fundamentally alter our understanding of the earliest origins of coral reef fishes.*

Located just 500 kilometers from the point where an asteroid impact reconfigured the world's biological systems 66 million years ago, we find the earliest origins of three typical reef fish groups.

Their presence in Mexico just 3 million years after this impact finally reconciles the conflict between the fossil and phylogenetic evidence for the earliest origins of reef fishes. The incorporation of these fossils into a global reconstruction of fish evolutionary history reveals a new picture of the early biogeography of reef fishes, with strong Atlantic links.

From locations associated with biological destruction and societal collapse, we see evidence of the origins of one of the world's most diverse and spectacular marine ecosystems: coral reefs.

In the 2000s, archaeologists were studying the temples in the Mayan city of Palenque. Examination of the fossiliferous limestones inside the temples revealed fossil evidence of mass mortality events of fishes and invertebrates.

Closer examination of sarcophagi within the temple complex by anthropologists and paleontologists found lithographic features that linked the limestones to a different location in the Tenejapa-Lacandón formation.

These limestones are of Danian (Lower Paleocene; 61.6 to 66 million years ago) age, and, remarkably, further examination of the Tenejapa-Lacandón formation deposits in nearby limestone quarries revealed exceptionally well-preserved fossil fishes. These fishes included families that are typically found on modern coral reefs.

The age and geographic position of these Palenque fossil sites offers an exceptional opportunity to understand the response of reef fish lineages to the last great mass extinction event at 66 million years ago.

These fishes were living just 3 million years after the Cretaceous-Paleogene boundary and offer a glimpse into the early formation of modern fish faunas at the beginning of the Cenozoic Era.

Even more remarkable is the proximity of the Palenque deposits to the Chicxulub asteroid impact site (500 kilometers away), that is, the site of the impact that triggered the Cretaceous-Paleogene boundary.

The age and location of the fossils, therefore, provide a unique setting to observe the dynamics of biodiversity accumulation shortly after the most recent global mass extinction event.

For a long time, there has been a question over the "missing" 16 million years between the end of the Cretaceous, at 66 million years ago, when we lose many marine groups, including some fishes, and the presence of a near complete reef fish assemblage, in terms of their taxonomic composition, in the Eocene, at 50 million years ago.

Where were the reef fishes during this time? The estimated age of origin of modern reef fish lineages, based on molecular phylogenies, varies widely, from the Eocene to the Cretaceous.

These older estimates are clearly at odds with the fossil record, with no articulated fossils of any modern reef fish family prior to the Cretaceous-Paleogene boundary and very few prior to 50 million years ago. This raises the question of when reef fish assemblages, or the fish lineages that occupy coral reefs today, first arose and where.

The Palenque fish fossils may hold the answer, with the presence of both pycnodonts, remaining vestiges of a once diverse and widespread Mesozoic fish group, and the earliest representatives of a number of potentially nonmonophyletic acanthomorph fish groups that are characteristic of modern coral reefs, including the flutemouths (Aulostomoidea), groupers (Serranidae) and damselfishes (Pomacentridae).

Ghezelayagh, A., et al (2022) **Prolonged morphological expansion of spiny-rayed fishes following the end-Cretaceous.** NATURE ECOLOGY AND EVOLUTION 6:1211-1220

Authors' abstract: *Spiny-rayed fishes (Acanthomorpha) dominate modern marine habitats and account for more than a quarter of all living vertebrate species. Previous time-calibrated phylogenies and patterns from the fossil record explain this dominance by correlating the origin of major acanthomorph lineages with the Cretaceous-Palaeogene mass extinction.*

Here we infer a time-calibrated phylogeny using ultraconserved elements that samples 91.4% of all acanthomorph families and investigate patterns of body shape disparity.

Our results show that acanthomorph lineages steadily accumulated throughout the Cenozoic and underwent a significant expansion of among-clade morphological disparity several million years after the end-Cretaceous.

These acanthomorph lineages radiated into and diversified within distinct regions of morphospace that characterize iconic lineages, including fast-swimming open-ocean predators, laterally compressed reef fishes, bottom-dwelling flatfishes, seahorses and pufferfishes.

The evolutionary success of spiny-rayed fishes is the culmination of multiple species-rich and phenotypically disparate lineages independently diversifying across the globe under a wide range of ecological conditions.

Davies, N.S., et al (2022) **Wood jams or beaver dams? Pliocene life, sediment, and landscape interactions in the Canadian High Arctic.** PALAIOS 37:doi.org/10.2110/palo.2021.065

Authors' abstract: *During the mid-Pliocene (Zanclean, ca. ~ 3.9 megayears ago), parts of the Canadian High Arctic experienced mean annual temperatures that were 14 to 22˚C warmer than today and supported diverse boreal-type forests.*

The landscapes of this vegetated polar region left behind a fragmented sedimentary record that crops out across several islands in the Canadian Arctic Archipelago as the Beaufort Formation and correlative strata.

Paleoecological information from these strata provides a high-fidelity window onto Pliocene environments, and prominent fossil sites yield unparalleled insights into Cenozoic mammal evolution.

Significantly, many of the strata reveal evidence for life-sediment interactions in a warm-climate Arctic, most notably in the form of extensive woody debris and phytoclast deposits.

This paper presents original field data that refines the sedimentological context of plant debris accumulations from the anactualistic High Arctic forests, most notably at the 'Fyles Leaf Beds' and 'Beaver Pond' fossil-bearing sites in the 'high terrace deposits' of central Ellesmere Island.

The former is a remarkably well-preserved, leaf-rich deposit that is part of a complex of facies associations representing lacustrine, fluvio-deltaic and mire deposition above a paleotopographic unconformity.

The latter yields tooth-marked woody debris within a peat layer that also contains a rich assemblage of vertebrate and plant fossils including abundant remains from the extinct beaver-group Dipoides.

Here we present sedimentological data that provide circumstantial evidence that the woody debris deposit at Beaver Pond could record dam-building in the genus, by comparing the facies motif with new data from known Holocene beaver dam facies in England.

Across the Pliocene of the High Arctic region, woody debris accumulations are shown to represent an array of biosedimentary deposits and landforms including mires, driftcretions, woody bedforms, and possible beaver dams, which help to contextualize mammal fossil sites, provide facies models for high-latitude forests, and reveal interactions between life and sedimentation in a vanished world that may be an analogue to that of the near-future.

Dinosaurs:
How To Start A Brawl In A Tavern Filled With Palaeontologists.

Speirs: For any other dinosaur than *Tyrannosaurus rex*, few would notice the taxonomic debate. This critter, however, is the one dinosaur everyone knows.

Paul, G.S., et al (2022) **The tyrant lizard king, queen, and emperor: Multiple lines of morphological and stratigraphic evidence support subtle evolution and probable speciation within the North American genus *Tyrannosaurus*.** EVOLUTIONARY BIOLOGY 49:156-179

Authors' abstract: *All skeletal specimens of the North American dinosaur Tyrannosaurus and a number of trace fossils have been attributed to the single species: T. rex.*

Although an unusual degree of variation in skeletal robustness among specimens and variability in anterior dentary tooth form have been noted, the possibility of sibling species within the genus Tyrannosaurus has never been tested in depth in both anatomical and stratigraphic terms.

New analysis, based on a dataset of over three dozen specimens, finds that Tyrannosaurus specimens exhibit such a remarkable degree of proportional variations, distributed at different stratigraphic levels, that the pattern favors multiple species at least partly separated by time; ontogenetic and sexual causes being less consistent with the data.

Variation in dentary incisiform counts correlate with skeletal robusticity and also appear to change over time. Based on the current evidence, three morphotypes are demonstrated, and two additional species of Tyrannosaurus are diagnosed and named.

One robust species with two small incisors in each dentary appears to have been present initially, followed by two contemporaneous species (one robust and another gracile) both of which had one small incisor in each dentary, suggesting both anagenesis and cladogenesis occurred.

The geological/geographic forces underlying the evolution of multiple Tyrannosaurus species are examined. A discussion of the issues involving the recognition and designation of multiple morphotypes/species within dinosaur genera is included.

[Here follows a rebuttal.]

Carr, T.D., et al (2022) **Insufficient evidence for multiple species of *Tyrannosaurus* in the Latest Cretaceous of North America: A comment on "The tyrant lizard king, queen and emperor: multiple lines of**

morphological and stratigraphic evidence support subtle evolution and probable speciation within the North American genus *Tyrannosaurus*". EVOLUTIONARY BIOLOGY 49:doi.org/10.1007/s11692-022-09573-1 (available as a free pdf)

Authors' abstract: *The Late Cretaceous dinosaur Tyrannosaurus rex was recently split into three species based on the premise that variation in the T. rex hypodigm is exceptional, indicating cryptic species and "robust" and "gracile" morphs.*

The morphs are based on proportional ratios throughout the skeleton. The species are claimed to be stratigraphically separate, with an early robust species followed by robust and gracile descendants.

There are problems with the hypothesis:
the taxon diagnoses are based on two features that overlap between the species;
several skulls cannot be identified based on the diagnoses;
proportional comparisons between Tyrannosaurus and other theropods are based on incomparable samples;
the tooth data are problematic;
the stratigraphic framework divides the Hell Creek Formation into thirds, without the stratigraphic position of each specimen, or independent age control showing the subdivisions are coeval over the entire geographic area;
previous work found variation in T. rex, but it cannot be parsed into discrete categories.

We tested for "gracile" and "robust" morphs by analyzing the femoral and tooth ratios that were published in the multiple species study using agglomerative hierarchical clustering.

The results found that each set of ratios are explained by one cluster, showing that dimorphism is not supported. We tested for exceptional variation of the femoral ratio of Tyrannosaurus; we calculated the mean intraspecific robusticity for 112 species of living birds and 4 nonavian theropods.

The results showed that the absolute variation in Tyrannosaurus is unexceptional and it does not indicate cryptic diversity. We conclude that "T. regina" and "T. imperator" are subjective junior synonyms of T. rex.

Ecology.

Finerty, P.B., et al (2022) **The olfactory landscape concept: A key source of past, present, and future information driving animal movement and decision-making.** BIOSCIENCE 72:745-752 (available as a free pdf)

Authors' abstract: *Odor is everywhere, emitted across the landscape from predators, prey, decaying carcasses, conspecifics, vegetation, surface water, and smoke. Many animals exploit odor to find food, avoid threats, and attract or judge potential mates.*

Here, we focus on odor in terrestrial ecosystems to introduce the concept of an olfactory landscape: real-time dynamic olfactory contours reflecting the patchy distribution of resources and risks, providing a key source of information used by many animals in their movement and decision-making.

Incorporating the olfactory landscape into current frameworks of movement ecology and animal behavior will provide a mechanistic link to help answer significant questions about where, why, and when many animals move, and how they do so efficiently in both space and time.

By understanding how animals use the olfactory landscape to make crucial decisions affecting their fitness, we can then manipulate the landscape to modify ecological interactions and, ultimately, ecosystem consequences of these interactions.

von Hohenberga, B.C., and A. Hager (2022) **Wolf attacks predict far-right voting.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2202224119 (available as a free pdf)

Authors' abstract: *Does the return of large carnivores affect voting behavior? We study this question through the lens of wolf attacks on livestock. Sustained environmental conservation has allowed the wolf (Canis lupus) to make an impressive and unforeseen comeback across Central Europe in recent years.*

While lauded by conservationists, local residents often see the wolf as a threat to economic livelihoods, particularly those of farmers. As populists appear to exploit such sentiments, the wolf's reemergence is a plausible source for far-right voting behavior.

To test this hypothesis, we collect fine-grained spatial data on wolf attacks and construct a municipality-level panel in Germany. Using difference-indifferences models, we find that wolf attacks are accompanied by a significant rise in far-right voting behavior, while the Green party, if anything, suffers electoral losses.

We buttress this finding using local-level survey data, which confirms a link between wolf attacks and negative sentiment toward environmental protection. To explore potential mechanisms, we analyze Twitter posts, election manifestos, and Facebook ads to show that far-right politicians frame the wolf as a threat to economic livelihoods.

Miller, S.D. (2022) **Boat encounter with the 2019 Java bioluminescent milky sea: Views from on-deck confirm satellite detection.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2207612119 (available as a free pdf)

Author's abstract: *Milky seas are massive swaths of uniformly and steadily glowing ocean seen at night. The phenomenon is thought to be caused by luminous bacteria, but details of milky sea composition, structure, cause, and implications in nature remain largely uncertain.*

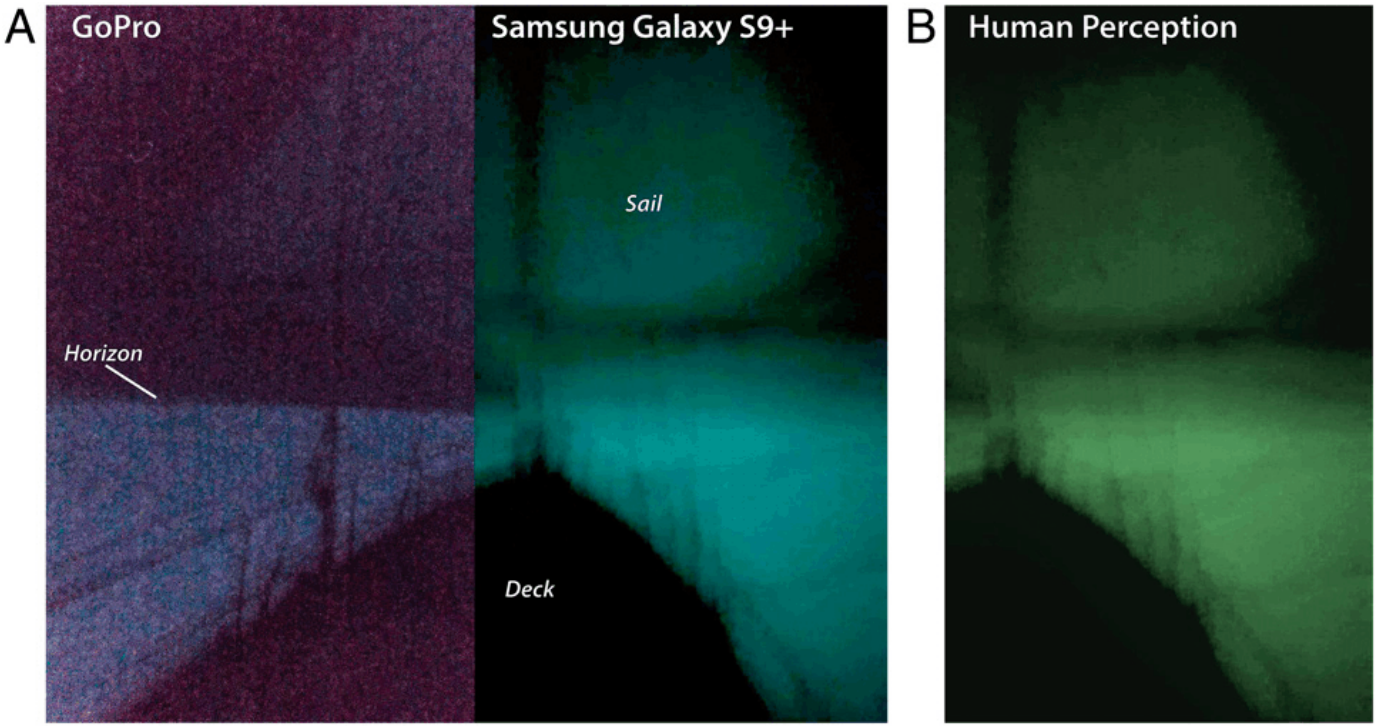
Between late July and early September 2019, specialized low-light satellite sensors detected a possible bioluminescent milky sea south of Java, Indonesia, spanning >100,000 km2. Upon learning of these findings, crew members of the yacht Ganesha reached out to confirm and share details of their personal encounter with this same event.

Here, we document Ganesha's experience as recalled by the crew, compare their course to satellite data, and assess their photography of this milky sea.

Milky seas are a rare (approximately zero to two times per year globally) form of marine bioluminescence which impart to the nighttime ocean surface the surreal appearance of a daylit snowfield under dark, moonless skies.

Sailors' reports over the centuries suggest milky seas occur preferably in the northwestern Indian Ocean and Maritime Continent region. Unlike the transient flashes of bioluminescence made by phytoplankton in disturbed waters, milky seas produce a steady glow, even in calm waters.

They are thought to be caused by luminous bacteria, communicating with each other and triggering a glowing response upon reaching critical populations via a process called quorum sensing.



[Images are from this paper and show the milky sea as seen by crew of the yacht Ganesha.]

Geology.

Tanigawa, K., et al (2022) **A new chronology for tsunami deposits prior to the 1700 CE Cascadia earthquake from Vancouver Island, Canada.** SCIENTIFIC REPORTS 12:doi.org/10.1038/s41598-022-16842-8 (available as a free pdf)

Authors' abstract: *Coastal deposits at Tofino, Ucluelet, and Port Alberni in Vancouver Island along the Cascadia subduction zone were re-examined to improve the earthquake history of the southwest coast of Canada. We found sand sheets interbedded within peat and mud, suggesting deposition by strong flows in a low-energy environment.*

Based on limiting maximum and minimum ages derived from plant macrofossils, the age of one of the sand sheets below the tsunami deposits of the great Cascadia earthquake in 1700 CE was estimated to be 1330 to 1430 CE. Onshore paleoseismic evidence has been documented in Vancouver Island, northern Washington, and northern Oregon during this period.

However, the newly constrained age is between those of co-seismic subsidence Y and W events in southern Washington, which have been recognized as the 1700 CE and the penultimate Cascadia earthquakes, respectively.

Moreover, the new age partly overlaps with the age of offshore paleoseismic evidence for T2, interpreted to have originated from the penultimate Cascadia earthquake, based on offshore turbidite records.

The most recent Cascadia earthquake on 26 January 1700 CE is the best documented of all of these events. Its date was constrained by tree-ring dating in southern Washington and from written records in Japan.

This evidence suggests that the 1700 CE Cascadia earthquake and tsunami affected much of the west coast of Vancouver Island. Pioneering studies in 1990s reported tsunami deposits associated with the 1964 Alaska and the 1700 CE Cascadia earthquakes from Tofino, Ucluelet, and Port Alberni on Vancouver Island.

Human Prehistory.

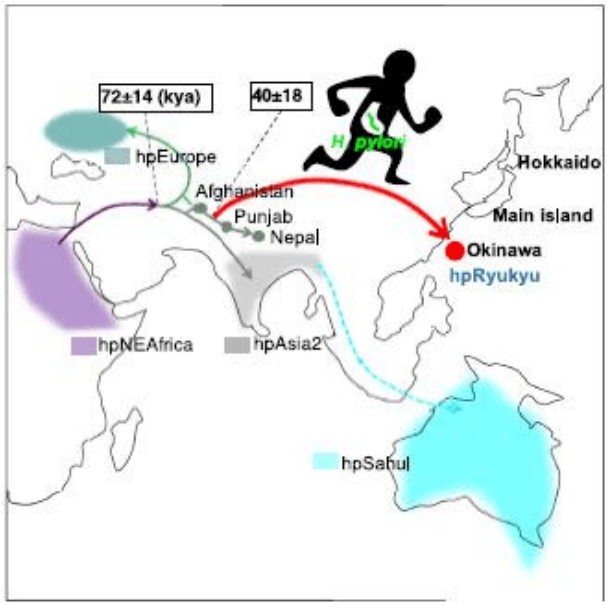
Suzuki, R., et al (2022) ***Helicobacter pylori* genomes reveal Paleolithic human migration to the east end of Asia.** iSCIENCE 25:doi.org/10.1016/j.isci.2022.104477 (available as a free pdf)

Authors' abstract: *A virulence bacterium, Helicobacter pylori, evolved parallel to its host human, therefore, can work as a marker for tracing the human migration. We found H. pylori strains indigenous in the southernmost islands of Japanese Archipelago, Okinawa, and defined them as hspOkinawa and hpRyukyu.*

Genome data of the strains revealed that hspOkinawa diverged from other East Asian strains about 20,000 years ago, and that hpRyukyu diverged about 45,000 years ago.

The closest strains of hpRyukyu were found from Afghanistan, Punjab, and Nepal, which suggest this strain originated in the central Asia and traveled across the Eurasian continent during Paleolithic era.

The divergence date of hpRyukyu corresponds with human fossil records in Okinawa. Although it is controversial from human DNA analyses whether descendants of the Paleolithic migrants remain in the modern Japanese population, this study reveals that the bacterium of Paleolithic origin remains in the stomachs of current Japanese.



[Images are from this paper.]

Woywitka, R., et al (2022) **Late Pleistocene aeolian deposition and human occupation on the eastern edge of the deglacial corridor, northeastern Alberta, Canada.** QUATERNARY RESEARCH 107:10.1017/qua.2022.14 (available as a free pdf)

[Fort McMurray is the capital of the Athabasca Tar Sands in northeastern Alberta. Lake Agassiz was a giant lake formed by dammed glacial meltwater. When the dam burst, a gigantic flood swept across eastern North America into the Atlantic Ocean. The burst of cold water into the ocean triggered a cold spell that disrupted human cultures in Europe.]

Authors' abstract: *The lower Athabasca River basin in northeastern Alberta contains one of the highest known concentrations of prehistoric archaeological sites in the boreal forests of western Canada.*

This is due to the combination of readily available sources of lithic raw material stone near a major travel corridor, and extensive archaeological survey conducted in advance of oil sands mining.

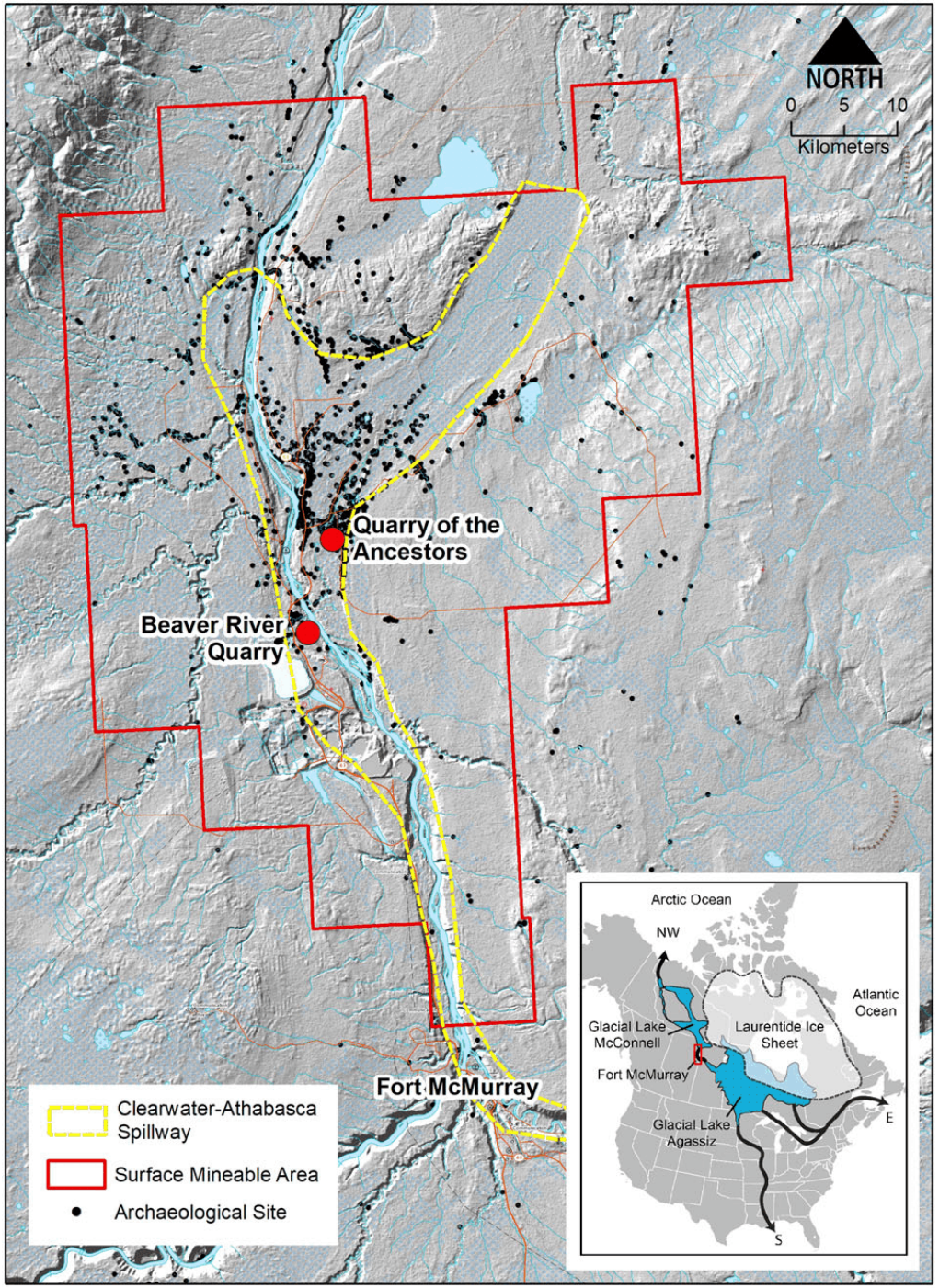
Typological studies have proposed immediate post-glacial occupations that were contemporaneous with, or immediately followed, the catastrophic glacial Lake Agassiz flood through the area at the end of the Pleistocene.

Here, we complement the typology age estimates by using stratigraphic relations and infrared stimulated luminescence (IRSL) dating of aeolian material to determine the age of initial human occupation, and reconstruct the environment encountered by early inhabitants of the region.

We find that the first occupations in our study area took place near the Pleistocene-Holocene boundary (ca. 11.3 ± 0.8 ka BP), shortly after catastrophic flooding from Lake Agassiz. The post-flood environment was dominated by cold climatic conditions that supported permafrost, presumably during the late Pleistocene, and underwent significant aeolian deposition.

Our results indicate that this area represents a portion of the eastern edge of the deglacial corridor into which plants, animals, and humans dispersed following retreat of the Laurentide Ice Sheet.

[Map is from this paper.]



Modern Humans.

Galvani, A.P., et al (2022) **Universal healthcare as pandemic preparedness: The lives and costs that could have been saved during the COVID-19 pandemic.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2200536119 (available as a free pdf)

Authors' abstract: *The fragmented and inefficient healthcare system in the United States leads to many preventable deaths and unnecessary costs every year. During a pandemic, the lives saved and economic benefits of a single-payer universal healthcare system relative to the status quo would be even greater.*

For Americans who are uninsured and underinsured, financial barriers to COVID-19 care delayed diagnosis and exacerbated transmission. Concurrently, deaths beyond COVID-19 accrued from the background rate of uninsurance.

Universal healthcare would alleviate the mortality caused by the confluence of these factors. To evaluate the repercussions of incomplete insurance coverage in 2020, we calculated the elevated mortality attributable to the loss of employer-sponsored insurance and to background rates of uninsurance, summing with the increased COVID-19 mortality due to low insurance coverage.

Incorporating the demography of the uninsured with age-specific COVID-19 and nonpandemic mortality, we estimated that a single-payer universal healthcare system would have saved about 212,000 lives in 2020 alone.

We also calculated that US$105.6 billion of medical expenses associated with COVID-19 hospitalization could have been averted by a single-payer universal healthcare system over the course of the pandemic. These economic benefits are in addition to US$438 billion expected to be saved by single-payer universal healthcare during a nonpandemic year.

Despite spending more on healthcare than any other country, both overall and on a per capita basis, the United States does not provide universal healthcare, resulting in preventable deaths and excessive costs.

In 2019, prior to the emergence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), over 28 million adults were uninsured, an increase of 2.2 million from 2016.

Since 2020, the COVID-19 pandemic has underscored the public health, economic, and moral repercussions of widespread dependence on employer-sponsored insurance, the most common source of coverage for working-age Americans.

Business closures and restrictions led to unemployment for more than 9 million individuals following the emergence of COVID-19. Consequently, many Americans lost their healthcare precisely at a time when COVID-19 sharply heightened the need for medical services.

Fisman, David (2022) **Universal healthcare and the pandemic mortality gap.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2208032119 (available as a free pdf)

Author's extracts: *Canada and the United States are wealthy federal democracies that share ties of history, culture, language, and the world's longest undefended border. However, the countries are not identical, and this truth has been underlined during the recent pandemic.*

As Galvani et al. [see above paper] *note in PNAS, Canada's response to the current severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic has been far more successful at preserving life and health than the US response, with per-capita SARS-CoV-2 attributed mortality around 3 times higher in the United States than in Canada.*

The authors suggest that is due, in part, to an important difference between Canada and the United States. Canada has universal, single-payer health insurance; the US health insurance system is a patchwork, with millions of individuals uninsured, or underinsured.

A recent reanalysis finds that, as of the end of April 2022, Canada has experienced almost 100,000 fewer cumulative COVID-19 deaths than would have occurred with a US-equivalent response, with fully 28% of these additional deaths occurring in individuals aged less than 65 years.