



Game of Thrones

For kings and queens of the north doing our business in remote locations, alternative toilets can be an economical, water-efficient, and convenient way to get that royal flush

BY JACKIE DAVIS

ILLUSTRATION
HAYDEN MAYNARD

WHEN MY FAMILY FINALLY got a composting toilet at our cottage in 2010, it was the most extravagant upgrade that our little off-grid cabin had ever received. Pre-composting unit, the throne was a bucket fastened below the outhouse bench. This system had been in place for decades, since before my family got the cottage; my German grandmother felt it perfectly appropriate (“*Das ist cottage*,” she liked to insist). But eventually, emptying a pail of raw sewage was a chore that made negative amounts of sense when there were so many better—and less disgusting—options available. So, after Oma passed, and after a lot of research, we settled on a composting toilet. A decade later, we still love it.

Alternative toilets can be more efficient and consume less water than a septic system; they’re a useful option when you need a secondary toilet to relieve pressure on your existing septic; and for some off-gridders, they’re a solution that’s more appealing than an outhouse. (You can house them inside the cottage. No more stumbling through the darkness in the middle of the night. Yay!)

“We all gotta go,” says Rick Taylor of Canadian Eco Products, which distributes the waterless Separett toilet. “But no one wants to talk about it.” Well, that’s just not true. *Cottage Life* wants to talk about it. »

What's the breakdown?

Getting an alternative toilet, “is like getting a new pet,” says Rob Davis of EcoEthic, which sells the electric MullToa composting toilet and the EcoJohn TinyJohn incinerating toilet. Choose wisely: you don’t want to end up with a ball python when you really should’ve picked a goldfish.



A

Composting toilets

WASTE GOES IN, COMPOST COMES OUT. Everybody wins! Composting toilets achieve this by combining together waste, air, moisture, and warmth. The simplest version is the self-contained unit, where waste drops down into a chamber below. That’s where the magic happens. “They’re a one-piece system,” says Erin Lynch of Sun-Mar. “Everything can be done right there where the toilet is.”

Some toilets are waterless; others are low-water flush units. Some models require a small amount of power—through electricity, battery, or solar—to run a heating element to evaporate liquid or a fan to vent odours. Other toilets simply use a long vent stack, outhouse-style. Most units have some way to mix or “turn” the compost (to help break it down) via a hand crank or motor. Most also require the periodic addition of some kind of bulking agent (such as mulch, peat moss, or coconut fibre) to help absorb liquid and encourage the composting process by

boosting the carbon content of the mixture. Compost needs a specific ratio of carbon to nitrogen; human waste alone has too much nitrogen.

If you’re looking for a multi-toilet set-up, “central” composting systems feature a separate, larger chamber—located in the basement, say—connected to one or more thrones, and may use a small amount of water, or vacuum suction, to flush. This is a good option when a cottager only has the space for a greywater system to handle the water from sinks and showers or wants multiple toilets but doesn’t have room for a large drainfield, says Luis Goncalves, the owner of GroundStone WasteWater Service in West Kelowna, B.C.

Price-wise, the most basic of toilets are—no surprise—the least expensive of the composting toilets: Sun-Mar’s self-contained units range from about \$1,700 to \$1,900, while more elaborate, higher-capacity units can cost three times as much.

B

Urine-diverting (or separating) toilets

RAW SEWAGE SMELLS. But, separating urine from solid waste tamps down on scent because, unless the two are combined, there’s no stinky ammonia, hydrogen sulphide, or methane. The bowls of these toilets are designed to send liquid into one chamber and solids into another. To do this successfully and direct urine into the drain hole at the front of the bowl, manufacturers often recommend that men sit down to pee. “But if you can be relied upon to aim for the forward section of the bowl, you can stand,” says Richard Brunt, the owner of Composting Toilets Canada in Victoria, which distributes both Separett and Nature’s Head urine-diverting units. “I stand, personally.”

Manufacturers still label these units composting toilets, but “what comes out of urine-diverting toilets is not compost,” says EcoEthic’s Rob Davis. You’re getting urine, and something that’s *compostable*, straddling the line between straight crap and “useable” compost. And it’s on you to deal with this unfinished business. If you have an outhouse, or a toilet connected to a septic system, put it in there, says Rick Taylor. But what if you don’t? Manufacturers have all kinds of suggestions including treating it like a dirty diaper and throwing it in the garbage; burning it; and tossing it on your regular compost heap.



But, if you call your municipality, and ask them if you can do any of these things, they’ll probably say no. “You need to call your municipality and ask them what you can do,” says Brunt. “You might need a waste management system.” A common set up: use a simple leaching bed for the liquid, and compost the solids via a system dedicated to handling human waste. “You need a proper compost bin,” says Brunt. “Don’t use a garbage can, don’t use a wheelie bin. Some people cheap out and do this—it’ll just result in a stinky mess.” But with a tumbling composter or compost bin, which you can buy for about \$100, it’ll result in fertilizer for your trees and flowers.

The one giant bonus of urine-diverting toilets? Their typically low price tag—you’re doing most of the composting work, not the toilet. Sun-Mar’s GTG, for example, (see “New Kids on the Block,” below) retails for about \$630. >>

New kids on the block

Here are some of the latest in alternative toilets



Sun-Mar’s GTG urine-diverting toilet

- Small, economical
- Fast set-up

\$629



Cinderella Gas incinerating toilet

- Can handle 3–4 visits per hour
- One 20 lb (barbecue-sized) propane tank provides 75 to 100 incineration cycles

\$5,190



Separett’s Tiny urine-diverting toilet

- Good for tiny homes, RVs
- For full-time use by 2 users, solid waste needs to be emptied once per week (urine, 2–3 times)

Approx \$1,500



Nature’s Head urine-diverting toilet

- Holds 60–80 solid uses
- With 2 users, can go 6 weeks without needing to be emptied

\$1,299

C

Incinerating toilets

INCINERATING TOILETS BURN waste at a very high temperature. You're left with a small amount of sterile ash to dispose of as you would ash from your fireplace. There's no liquid to drain; any combustion gases are expelled out through a ventilation pipe.

"People hear the word 'incinerating' and they just think 'fire,'" says Joey McNeil of Cinderella Eco, a Norwegian-made incinerating toilet that's been sold in Canada since 2018. "They ask, 'Is it safe? I've got kiddies,' or 'I have dumb adults.'" But incinerating units typically have built-in sensors that shut off the toilet when something's amiss. And the incinerating process stops automatically when a new user wants to use the toilet.

Unlike composting toilets, all incinerating toilets need some form of power or fuel—electricity, propane, natural gas, or kerosene, for example. An electric model may not be the best choice if your area is prone to power outages; that said, with the Incinolet incinerating toilet, you can store "deposits," says company rep Joanne Whyte. "It's not recommended for normal

use, but it's okay in an emergency. In that case, an extra burn cycle may be required once the power comes on." A better option? Have a backup generator to run the toilet.

Incinerating toilets are usually the priciest of the bunch. For example, U.S.-based EcoJohn's TinyJohn, which can run totally off-grid on a 12vdc battery and propane or natural gas, sells for about \$4,900 from EcoEthic. And the large-capacity Cinderella Comfort retails for \$4,990. You'll also need to factor in the yearly costs for fuel or electricity, and the costs of accessories.

My family, happily, chose the right new pet—er, *toilet*. With a little research and insight (see opposite), you can too. 🐾

Jackie Davis writes Cottage Life's regular Cottage Q&A column. She's answered about 400 questions. Lots were about toilets.



The old faithfuls

These tried and true models are as popular as ever



Incinolet's Model TR incinerating toilet

- Uses as little as 1½–2 kWh per cycle; serves up to 6 users
 - Optional coloured lid! Yellow, blue, or rose
- \$2,745**



EcoEthic's MullToa 25e composting toilet

- Fully automatic
 - Best for lower use; 1–3 people part-time
- \$2,350**



Sun-Mar's Centrex 2000 composting toilet system

- Waterless, electric
 - Serves 4 adults for residential use, or 7 for seasonal use
 - Connects to multiple (separately purchased) toilets
- \$2,055**



EcoJohn's SepticJohn incinerator system

- Can take 40 daily flushes
 - Waste from household toilets routed to central incinerator system, often housed separately
- \$6,995 U.S.**

Is an alternative toilet right for you?

Before you buy, you should ask:



Will I need a permit?

A "no-discharge, sealed unit" (a.k.a. self-contained, waterless toilet) usually won't, says Sandy Bos, the sewage system inspector for Ontario's Township of Muskoka Lakes; there's nothing draining into the environment. But if you're adding an extra toilet to accommodate more guests, that could translate into more people using the existing plumbing. "People say, 'I don't want to upgrade my septic', but when you add another toilet, you can also get more water going into the existing set-up because more people are washing their hands and showering," says Bos. As always, check with your local regulator (usually the building department or the health unit).



How many people will be using the toilet day-to-day? What about on the weekends?

You're best to over-estimate this number, and spend more money on a higher-capacity toilet, especially if an alt toilet is your only throne. The Cinderella Comfort can handle "three to four visits per hour," says McNeil. "You do sometimes need to manage that. You wouldn't want a lineup of 10 people, all needing to use the toilet at the same time, after a dinner party." (Cinderella sells a separate urinal designed as a companion, intended to help relieve the burden on the toilet's incinerator, says McNeil. "After all, most bathroom visits are number one.") Urine-diverting toilets are considered "unlimited capacity." If lots of people use the toilet, you just need to empty it more frequently. Composting models are usually rated for the number of users (one to three people; five to seven people) and "full-time" vs. "part-time" or "vacation" use. Ask the manufacturer for the average per-person daily number of uses. Three visits? Six visits? That will make a difference.



How important are looks?

Urine-diverting toilets can appear fairly toilet-like. Some incinerating models, meanwhile, are boxy. And the Incinolet looks a little like someone attached a toilet seat to a hotel mini-fridge. Does any of this matter? Possibly more important: size. Self-contained toilets such as the Phoenix, distributed by B.C.'s Sunergy Systems, and Sun-Mar models must house the composting gadgetry below the toilet bowl. Even Sun-Mar's Spacesaver is 19.5" wide and 23" deep. Not ginormous, but still larger than a conventional toilet. Keep in mind that, depending on the model, you want to leave space around the toilet to be able to easily pull out the compost tray or ashpan, or do other required maintenance or cleaning.



How prepared am I to do the regular maintenance and troubleshoot potential problems?

The toilets in your house can take a joke, but some alternative toilets are finicky and prone to throwing a tantrum when they don't get exactly what they want. Too much liquid? Problem. Not enough liquid? Problem. And non-cottage guests sometimes do bizarre things, like try to "flush" a waterless toilet with cup-fulls of water, or dump handful after handful of peat moss into the throne, even though the instructions on the wall *specifically tell them not to*. "Around here, I've seen a lot of composting and incinerating toilets on the side of the driveway because the owners got fed up with them," says Sandy Bos. "They do take some work. And some patience."



How high is my squick tolerance?

The very idea of a urine-diverting toilet can be "terrifying" for some people who don't like the idea of seeing their own waste, says Rob Davis. But a lot of that is mental, insists Rick Taylor. "For the most part, you don't see that much. Personally, I think it's a lot less gross than an outhouse." But what if the toilet malfunctions? When someone (Not. Me.) accidentally rotated the mixing drum in our toilet the wrong way, the end result was smelly mystery sludge. The clean-up job was so traumatizing that my mother insisted on buying past-the-elbow rubber gloves—the sort of thing a vet might wear to give a cow a rectal exam—in case this ever happens again.

ICONS FROM NOUN PROJECT; TIMOFEI ROSTILOV; ANASTASIA LATYSHEVA; ALICE DESIGN; ICON 54; ICONIKAR

How long can we leave our boat?

BY JACKIE DAVIS

Q: We live in Buffalo, N.Y., and we have a cottage in Barry's Bay, Ont. Because of COVID-19, we were unable to get to our cottage in 2020. How bad is it for our 18-hp outboard—we leave it in an unheated shed—to sit for almost two years?
—*Micheal Tokarczyk, via email*

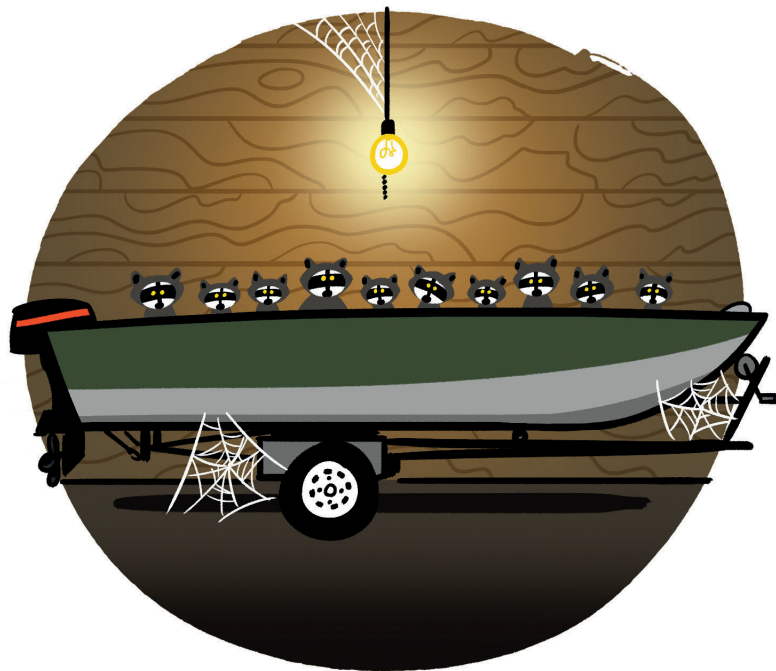
A: It's not good. But it's not *that* bad. Assuming it was put away properly, an engine could last for about two years, says Chris Pahnke of Inlet Marine Repairs in Port Moody, B.C. "If you left it for 20 years...that would be a completely different story."

Still, Murphy's Law tells us that lots of things could happen over the course of two years: the blades of the water pump impeller could dry out, harden, and crack; moisture could cause some corrosion of the engine's electrical components; rodents could get inside the shed and chew or pee on every single part of your boat.

"It's kind of a crapshoot," says Sean Horsfall, the owner of Len's Cove Marina in Portland, Ont. But he thinks that the most likely scenario is that any fuel left in the tank or carburetor will have broken down. "The ethanol in fuel evaporates over time and leaves behind solids that aren't burnable in a boat engine."

Fingers crossed, this could be a non-problem, says Pahnke. First step: "I'd dump the old stuff, put in some fresh fuel, and then just see if the engine runs."

Sadly, it probably won't. "There's a 90 per cent chance that it'll need some servicing, and the carburetor will need a proper clean-out," says Horsfall. If you're used to doing the boat and engine maintenance yourself, you might be able to **DIY** everything. (See p.23 for spring boat maintenance tips.) If not, take it to an expert.



And if you can't get back to the cottage by the summer—ugh, we really, really hope that isn't the case, COVID—see if a Canadian lake neighbour can take the engine somewhere for servicing. Because Canadians are nice, eh?

Shed flooring fix

Q: We have a new shed (12-foot-by-20-foot) with a plywood floor. Before we put on a more permanent floor cover (vinyl, linoleum, laminate?), I would like to add some water-resistant protection on the plywood. The shed is on cement pillars at least six inches above the ground. Is that a good idea, and what kind of product would you suggest?
—*Don Whelan, Ancaster, Ont.*

A: Nice to hear from you again, Don! (Readers with strong attention to detail will recall that Don asked us about his shed foundation options one year ago, in the Mar./Apr. '20 issue.)

The good news is that none of our experts thought that moisture wicking up through the floor should be a problem. Since the shed is raised, air can circulate underneath. "In a shed, I wouldn't say that water protection is needed," says Sean Harris of the Little Building Company in Peterborough, Ont. "It's more likely that moisture would be coming from above—snow melting off a shovel, for example." The even better news is that you don't necessarily need any kind of floor covering at all.

"I'd recommend a good-quality stain instead," says Cottage Life's superstar

project builder, Wayne Lennox. Heck, "Who puts flooring in a shed?"

Well, not that many people. But we get it. Maybe you don't like the look of plywood. Maybe you have a lot of leaky, wood-staining power tools and dozens of grandchildren prone to spilling their juice boxes everywhere that they go. If that's the case, opt for vinyl. (You can even buy extra-tough sheet products designed for garage floors.) Laminate can be cardboard-like and buckle easily. And linoleum was really only cool until about the 1950s. (One source: "Does anyone even make linoleum anymore?")

Another option is to paint the floor. "That's what I'd do if it was my shed," says John Debono, the owner of Well Built Bunkies & Sheds based in Port Perry, Ont. This would give the floor a protective coating that's going to be easier to wipe off than bare plywood. If you go this route, he recommends a marine-grade paint, for extra durability.

Good luck, Don! Talk soon.

What's best for the bats?

Q: Where should we locate our bat house?
—*Al Dobson, via email*

A: Think like a bat. Your only goal is to survive and reproduce. You need access to water; you need safety; and you need a good place to raise your babies. You'll choose your home accordingly.

Most bat conservation organizations recommend locating a bat box somewhere close to natural water (within

1,500 feet) but not too close to any treeline (at least 20 feet away). Thick stands of trees can make bats nervous; all those branches give predators plenty of places to hide.

Bats—especially females—like warmth. “So, an east-facing location is probably best,” says Robert Barclay, a professor of ecology and evolutionary biology at the University of Alberta. “The box will warm in the morning but not cook from the sun in the afternoon.” If a lady bat deems a box too cold, she’ll refuse to nest there. And that’s no good; the children are the future! No, really. One bat eats 1,000 mosquitoes per night. Cottagers need them.

You can certainly attach a bat house to the side of your cottage. “The higher up the better,” says Barclay. Bats returning to the house need enough space to swoop down and then up into it. And baby bats, learning to fly, need room to briefly free-fall before they get their flapping under control, or else they’ll just crash to the ground. Barclay recommends positioning the box at least 15 feet up. But, “choose the location wisely,” he says. Bat feces are going to drop below the box. Over a flower bed is fine. Over a walkway or patio is ew.

Bats tend to avoid houses mounted on trees, or on structures with metal siding, according to Bat Conservation International. Another option is to mount the box on a pole. This may give you the flexibility to position it where it’s going to be most beneficial to your bat friends...and in the end, you.

Wet, slippery deck

Q: We have a large, untreated 10-year-old cedar deck at our cottage. When the deck gets wet, it is extremely slippery. Several of us have taken a tumble while walking on it. Around the perimeter are several hemlock trees with some overhanging branches. How can we make the deck safer?

—Gus Ezers, Crane Lake, Ont.

A: The deck is probably getting slippery because of algae growth, says Rod Stirling, an expert in wood protection with FP Innovations in Vancouver. “That’s often what we see with cedar.”

The simplest solution? Assuming you want to leave the cedar untreated, wash the deck. Or, wash it more frequently. You should be doing annual maintenance



and cleaning anyway—at the very least sweeping off leaves and debris, and scrubbing away any moss, mould, or algae. It’s possible to use straight water, a stiff brush, and sheer arm strength. “But a dedicated deck washing product is going to do a much better job,” says Stirling. You can find these at any hardware store; follow the instructions on the label. (Caveat: you’re best not to use a deck wash if there’s any chance the product could get into the lake. And be careful if you use a pressure-washer, since the spray can be powerful enough to gouge wood).

If you have slick steps, you can add anti-slip or “grip” strips designed for wood. They don’t look glaringly conspicuous, and they’re usually simple to attach, says Stirling.

Unfortunately, the overhanging tree branches probably aren’t helping the slimy situation. Trim them back. “Algae tends to grow where it’s shady.”

Even if you do all of this—even if you scrub the deck multiple times per year, “I wouldn’t want anyone to think, ‘Oh, now I can race around on the wet deck like crazy,’” says Stirling. “When things get wet, they get slippery.”

An extra step is to try an anti-slip coating. These are usually paints or stains containing added grit. They might change the look of the cedar, so coat a test spot before you treat the entire surface.

This tree has the blues

Q: When we cut up and split a fallen, dead oak from the back of our property this weekend, we discovered this blue core running up the centre of the trunk. What would cause this? Apparently it was in our neighbours’ trees too.—Vanessa Jacobs, via email

A: The colour comes from a fungus called “blue stain.” It often affects oak trees, says Matt Logan, an arborist with

Logan Tree Experts in Lakefield, Ont. If a tree is heavily inoculated with the fungus, “you can see little blue mushrooms, which are the external flower, on the rotting logs,” says Logan.

While it’s common to see blue stain on downed oaks, the fungus isn’t necessarily the primary reason that the tree died or fell. “Oaks are good compartmentalizers,” says Logan. Even if fungal spores get into the tree through an injury, or through the roots, the tree can seal up around the intrusion and survive just fine. But when the tree gets stressed, weakened, or even just old, the fungus is more likely to spread. Add in air—once



Trees with this Smurfy fungus can sprout ‘shrooms.

the tree does fall, and you chop it up, exposing more interior surfaces to oxygen—and the fungus flourishes.

“It’s like if you bite into an apple, put it down, and come back to it later. By then, it’s turning brown,” says Logan. “It’s the air making contact with the flesh of the apple that starts the decay.”

You can treat your blue wood like any firewood: chop it, split it, and dry it. Burning it won’t spread the fungus to any significant level. The spores are already all around, everywhere, says Logan. They’re in your neighbours’ trees; they’re in the soil, floating in the wind, and hitchhiking on wood-boring insects. So burning the logs, “would be the equivalent of throwing a bucket of water into the ocean.” 🐼

STILL LOOKING FOR ANSWERS? Send your questions to answers@cottagelife.com.

ASKED & ANSWERED

We get the same questions to Cottage Q&A year after year. How the info has changed nearly three decades later! Or...maybe not

By JACKIE DAVIS

1

Most likely to cause false alarm

Q When it's windy, we see what looks like soap suds or foam at the water's edge. Is this actual soap? Do we have to worry about the water?

A **In March 1992, we discovered:**

The foam is most likely a result of decomposing organic matter: algae, plants, leaves, stumps, branches, and other natural debris. As this stuff breaks down, it releases fatty acids similar to the ones in soap. These act as surfactants and lower the surface tension of the water, making it susceptible to foaming. When the water is tossed around by wind and waves, you get suds.

What's the story today?

Same. The foam doesn't harm lake dwellers, and it's safe to swim in (though it'll probably smell like fish or dirt).

So, foam was fine in 1992, and it's still fine now. Done and dusted. On the other hand, if you see what looks like a film, mat, or layer of scum on the surface of the lake, it could mean that you indeed need to worry about the water. Because it could be a blue-green algae bloom. The

chances of one blossoming on your lake in 1992? Low. Today? Much more likely. In the last 30 years, blooms—they can appear blue, green, red, brown, or even white—have become a problem on lakes all over the world.

Blue-green algae, a.k.a. cyanobacteria, occur naturally in any type of water. But they only cause trouble if, thanks to high amounts of nitrogen and phosphorus, they multiply quickly and form into large masses. These blooms deplete the water of oxygen, kill aquatic life, and make the water unsafe for swimming and drinking (for you and your dog).

If your lake is still bloom-free, that's a win! What can you do to keep it that way? No lawns or fertilizers; maintain your septic properly (see No. 6); and use phosphate-free detergents or cleaners. Never, ever use soap in the lake. It'll add phosphorus, boost nitrogen, and put actual soap suds into your water.



Reekiest, part A

Q My dog was sprayed by a skunk. We used tomato juice to clean him up, but it did nothing and the place still stinks. Can you suggest another solution?

A **In July/Aug 2006, we said:**

Tomato juice is for drinking, not de-skunking. It's a myth that it makes an effective remedy. What does work? This tried-and-true recipe:

- 4 cups 3% hydrogen peroxide
- ¼ cup baking soda
- 1 tsp liquid hand soap

- 1 Mix the formula in an open container.
- 2 Use immediately.

What's the story today?

"The hydrogen peroxide, baking soda, and soap mixture is still a good method," says Jerry Dragoo, a mephitologist (a skunk expert). "Use it as soon as possible after the dog gets sprayed." The mixture will oxidize the sulphur compounds and neutralize the skunk odour. So why does the tomato juice myth persist? "Tomato juice produces a strong odour," says Dragoo. "The reason people use it is because the nose is suffering from 'olfactory fatigue.'" Tomato juice (new smell) temporarily overwhelms the skunk stench (old smell). "But when you go outside to get a breath of fresh air and come back in, all you smell is skunk."

By the way, no one has ever asked us this question, but Dragoo—as a frequent sprayee—also has advice for anyone who gets hit by a skunk themselves. "I would never recommend this for dogs, but my wife, Gwen, uses diluted bleach on me," he says. "I can tell what kind of mood she's in by how diluted the bleach is."

URNS OUT, A LOT OF YOUR QUESTIONS HAVE MORE OR LESS THE SAME ANSWERS

Now you can answer your own Q&A! Fill in the blanks.

Q My neighbours are _____

(pick one: playing loud music/using shampoo in the lake/trespassing/leaving their exterior lights on all night/renting their cottage to noisy people). How do I get them to stop?

A Talk to them. They may not realize that what they're doing is _____

(pick one: upsetting you/bad for the environment/breaking a law). And involving a lawyer or bylaw officer right off the bat will just make things acrimonious.

Q Do I need a permit to _____

(pick one: build a deck/build a dock or boathouse/pour a foundation/do a reno/put up a tent)?

A Call your _____

(pick one: municipality/township) and ask.

Q I saw this weird _____

(pick one: brown/grey/grey-brown/black-brown) bug that looks like a beetle at my cottage. What is it?

A Without _____

(pick up to three: a photo/a better description/your location/any other detail at all) it's impossible to say for sure. But it's probably a beetle. There are more than 350,000 species of beetles in the world. And by now we've seen 349,999 of them.

3

Reekiest, part B

Q This season, the outhouse stank to high heaven. Any suggestions for reducing the odour?

A **In June 1998, we discovered:**

Adding ventilation to the outhouse is always going to be more effective than trying to mask the smell with some kind of product. Install two 10-cm-wide vent pipes, one in each corner over the pit, with one pipe sunk 45 cm lower than the other. (The uneven lengths will encourage air to go down one pipe and come out the other.) Make sure the pipes are tall enough to clear the roof of the privy. Add screened openings in the walls, and seal up any cracks; you want the stinky air to exit out the route that you've engineered for it instead of accumulating inside.

What's the story today?

We don't get this question nearly as often as we used to. Maybe—hot damn!—the problem has resolved itself. Or maybe fewer people build, and use, outhouses. (You're welcome, says the alternative toilet.)

Sadly, there are no miracle stink-removers on the market; ventilation is still the best way to address odours, says Nick Snyder, a building inspector with the Township of the Muskoka Lakes, Ont. If you're going to add something, says Snyder, wood ash is at least cheap—and plentiful if you enjoy campfires. >>



Fill in the blanks...

Q I've noticed a _____

(pick one: decrease/increase) in _____

(pick up to three: clams/deer/hummingbirds/fishers/mice/zebra mussels/mosquitoes) at my cottage this _____

(pick one: spring/summer/fall/winter). Why would that be?

A The population likely has gone _____ (pick one: up/down) because of a change in _____

(pick up to five: food availability/predators/suitable habitat/competing species/your perception).

Q Pine sap got on my _____

(pick up to three: plastic deck furniture/car/boat/jacket/dog/hair)! How do I get it off?

A To remove the sap from _____

(pick one: yourself/your pet), use vegetable oil. To remove the sap from _____

(pick one: your clothes/vehicles/furniture), use alcohol-based hand sanitizer.

Q I think there is a _____

(pick one: cougar/lynx/wolverine) hanging around my cabin. Should I be concerned?

A No. This animal is usually elusive; you may in fact be seeing a _____

(pick one: golden retriever/large house cat/rock). Still, just in case, bring your _____

(pick one: purse dogs/children) inside after dark.



Most colourful

Q Our lake water is amber in colour. It's caused by iron. Is there a filter that can remove this?

In Nov/Dec 1992, we discovered:

A One filter? Sorry: getting rid of colour—from tannins, manganese, or iron—can be one of the toughest water problems to solve. Especially if it's caused by organic-bound iron—iron that attaches itself to organic acids that come from decaying vegetation. Removing it will likely involve a combination of treatments or systems, not to mention a lot of trial and error.

What's the story today?

The good news? If you have minor, straightforward aesthetic water worries—small amounts of iron or tannins, say—it's easier than ever to treat.

“Overall, the technology has changed, improved, and we have better, more durable products that are way more efficient than previously available,” says Sheldon Crawford, a director for the Canadian Water Quality Association. “And they're at better prices than 10 to 20 years ago, factoring in inflation.”

The bad news? Not many cottagers have only minor, straightforward aesthetic water worries. “I would say water

problems and contaminants are more prevalent today than 25 years ago,” says Crawford. (This should not come as a shock. See No. 1.)

All surface water likely needs *something* removed if you're going to drink it. At the very minimum, that's *E. coli* and total coliforms, but “the most complicated water to treat is water that also has methane, organics, tannin, iron, and sulfur,” says Crawford. A treatment system, in this case, can start at \$6,000. Not cheap. But it's better for the planet—and your conscience—than opting for bottled water.

And what about pesky organic-bound iron? “Funny—or not funny, really—dealing with organically bound iron is still difficult,” says Adam Scheuer, the president of Watertiger in Burnaby, B.C. “This is one that still doesn't have a straightforward, easy-to-install filter.”

Not yet it doesn't! Ask us again in another 28 years.



ICON COUNT

How many questions have we answered about these cottage-country icons?

Outhouse
23*

Mouse
11

Mosquito
9

Loon
8

Canoe
5

Butter tart
0

*We were surprised too.



Most persistent and annoying

Q We have a moisture problem whenever we visit our place in the winter. We constantly have to mop up the water on the windows and windowsills. Any solutions?

In October 2010, we discovered:

A When you're in an enclosed space (cooking, showering, breathing) indoor humidity increases, and condensation forms on the cold windows, then drips down and pools on the windowsills. Lower the humidity, and you'll get rid of the moisture.

What's the story today?

Quick, to the Cottage Q&A question repository! We get more Qs about moisture, and its terrible offspring, mould, than we do about any other topic. Seasonal cottages and moisture problems go together like Jason Mamo and hair scrunchies: you can't really have one without the other. This is in part because most cottages are not heated year round.

“In a house, heating helps to lower humidity and drive the moisture out of building materials,” says Don Fugler, a building scientist in Ottawa. “Without

it, you're left with moisture accumulating on the interior finishes and the cottage contents. It doesn't take much for that high humidity to evolve into a condensation problem.”

This is why keeping the heat on, even when you're not at the cottage, can help banish moisture. Regardless of whether or not you ever visit in winter, an unheated cottage “can go through daily heating and cooling cycles during sunny periods,” says Fugler. “These cycles alone lead to moisture condensing on the interior of windows and then ruining the sills.”

Newer, airtight cottages can be more prone to this, unfortunately. (Grandpa's old, drafty cabin had its own passive ventilation.) Your simplest and cheapest move? Install fresh-air intake ducts; open the chimney damper (if you have a pest screen in place); and even consider leaving a few windows—covered by hardware cloth—partially open. Your cottage needs to breathe. >>

THE MVEs (MOST VALUABLE EXPERTS)

The sources we've consulted again and again. We thank them for their excellent ability to explain stuff. And their unfailing patience.

Succession Peter Lilloco, a Peterborough-based lawyer **Taxes** Karen Slezak, a partner with Crowe Soberman accounting firm in Toronto **Entomology** Bob “Quoted in *Cottage Life* since 1994” Anderson, a research scientist at the Canadian Museum of Nature **Outhouses** Sandy Bos, a building inspector with the Township of the Muskoka Lakes (we talked to Nick Snyder this time because Sandy Bos was away. We still love you, Sandy Bos!) **Botany** Jennifer Doubt, a curator at the Canadian Museum of Nature **Ornithology** Mark Peck, the manager of the Schad Gallery of Biodiversity at the Royal Ontario Museum **Septic systems** John Rowse, the executive director of the BC OnSite Sewage Association **Pest control** Gary “People ask *Cottage Life* such wacky questions!” Ure, the owner of Second Nature Wildlife Management in Kingston, Ont. **Building science** Don Fugler, formerly a senior researcher with Canada Mortgage and Housing Corporation

ONLY IN COTTAGE LAND: Our top gee-whizzy Q&As

Why does the lake feel warmer when you swim in the rain? (1992)

Because the rain has conducted some heat away from your body. You're already a little colder, so your body doesn't feel the chilliness of the lake water as readily.

Are freshwater clams suitable for human consumption? (1996)

Well, yes. But you really need to know what's in your water if you plan to harvest them. Mussels and clams are filter feeders, and thus, can take up and absorb certain contaminants from the lake. (We might've risked lake clams in 1996, but probably not in 2020.)

Why is the crescent moon the symbol for an outhouse? (2018)

The popular explanation—that early outhouse builders used Ancient Greek symbols to designate men's and women's biffies, and only the moon-marked structures survived—doesn't have much evidence to back it up. More likely? The semi-circle opening started out as a door handle, for ventilation, or to let in light—or maybe all three.

Why are wieners sold in packages of 12, while hot dog buns only come in packages of eight? (1998)

Actually, both wieners and buns are packaged and sold in multiples of eight, 10, and 12. Some stores just don't stock all the options. If you must have an equal amount of both using the 12-to-8 ratio, buy two packages of hot dogs and three packages of buns. Freeze what you don't use right away.

Two springs in a row, we arrived to find that our porch lightbulb had been removed. What kind of animal would do this? (2003)

The raccoon is the only one with enough dexterity. (Oooh, now we know how many raccoons it takes to unscrew a lightbulb: one.) Why steal your bulb? It might have had your human scent on it, which the hungry, post-hibernation raccoon would probably associate with food. But also, trash pandas are always up to no good.

What flavour is blue in the red-white-and-blue Popsicles? (1994)

Raspberry. In 1994, getting this answer required persistence—the Popsicle folks didn't want to give it up. But today it's just printed on the box.



Most (surprisingly!) contentious

Q I've noticed signs in cottage bathrooms that say Do Not Put Anything In This Toilet Unless You Have Eaten It First. Is this a sensible rule of thumb for septic systems?

A **In March 2001, we discovered:** It's a pretty good one. If your system is correctly sized, and you take proper care of it, bacteria in the tank will continually eat away at whatever you put inside. As long as it isn't plastic, tampons, condoms, cigarettes, matches, paper towel, cooking fat, coffee grounds, or eggshells. Chemicals such as bleach, paint solvents, and pesticides, meanwhile, can, in high enough concentrations, kill the bacteria in the tank.

What's the story today?

You sure shouldn't flush condoms, cigarettes, or a can of paint thinner down your toilet. But what about adding something to boost your septic system's

effectiveness? We've advised against using septic additives since the early issues of *Cottage Life*, and we're—mostly—sticking to our stories. If you maintain your septic system, it should contain all the bacteria that it needs to function perfectly.

Of course, a perfectly functioning septic system demands perfection on the part of the cottager. And a perfect cottager, when it comes to septic systems, is...nobody. Cottagers take prescription drugs and antibiotics. They use antibacterial soap. Sometimes they crack and pour bleach down the drain to kill fruit flies, because they're *just so tired of the damn fruit flies*. These chemicals enter the septic system; sometimes, that's enough to jeopardize the amount of good bacteria in the tank. In this case, adding a bacteria-based additive (read the label) can, in fact, be helpful.

Is a massive amount of anything that is not human waste good for your septic system? No. Is every septic additive out there terrible, in every single situation? Also, no.



Most futile

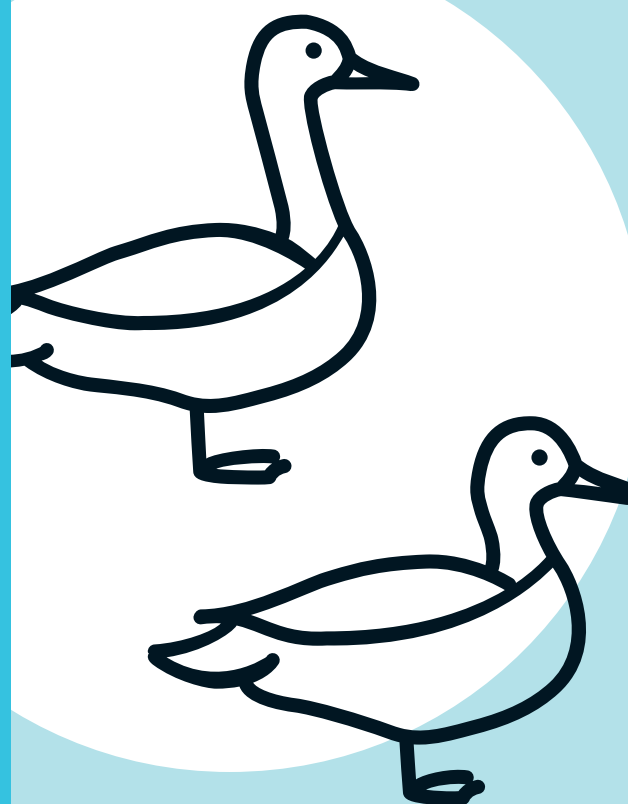
Q How do you keep waterfowl off docks and rafts?

In May/June 1991, we discovered:

A You don't.

What's the story today?

You still don't. Sorry. 🐾



Fill in the blanks...

Q How can I deter mice from my _____
(**pick one:** cottage/camper/shed/cabin)?

A Exclusion—as opposed to using traps or poison—is usually the best strategy. Screen the dryer vent, if the building has one, and seal up any _____

(**pick up to four:** holes/cracks/crevices/gaps). Mice need only an opening the circumference of a pencil.

Q Will _____
(**pick up to three:** dry-wall/wallpaper/electronics/linoleum/my medication) survive the winter in an unheated cottage?

A Products are designed for climate-controlled environments. So, if it's _____
(**pick one:** expensive/precious/life-saving/necessary to prevent pregnancy) take it home, and be prepared that your _____
(**pick one:** floor/wall/ceiling) may need some minor rehabbing in the spring.

Q Can adding a _____
(**pick one:** scoop of/handful of/bucket of) _____

(**pick up to three:** vinegar/peat moss/leaves/wood chips/worms) to the outhouse pit shrink the pile?

A Not really. You'll still have to _____
(**pick one:** pump it out/relocate it) eventually.

Q Is/are _____
(**pick up to four:** fertilizer/gasoline/paint/sunscreen/bug spray/fireworks/golf balls/microbeads/lawn clippings/shampoo) bad for the lake?

A Yup.

