



THE NEWSLETTER

March - April 2022

of the **Golf Course Superintendents Association of New England, Inc.**

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President's Message by Brian F. Skinner



Thanks to all who attended the 2022 Golf Course Superintendents Association of New England Annual meeting held in Foxborough at Patriot Place on March 3rd. It is always a great way to get together and support each other. Next year is always an option for those who didn't make it this year. We as a group are responsible for overseeing an industry that has been in existence for well over one hundred years. I believe it is important and meaningful to remain organized as an Association for almost as long, and I was happy to see all those in attendance. As your next President, I pledge to do my best to continue that legacy.

As we move out of COVID and into the start of the season, the international spotlight will soon be on us, particularly on Mr. Dave Johnson and we wish him the very best. With the US Open coming to Brookline in June, I believe we have an opportunity to shine bright.

Throughout COVID we were deemed essential and provided a healthy outlet for many people in our communities. I think we can all agree we didn't need COVID to remind us we are essential, however, this too was an opportunity. This was a chance for us to prevail and demonstrate the value of our profession, which we did. The resulting golf boom is evidence of that.

So I say today, take advantage of your opportunities. Consider each day a personal opportunity to improve, impress and increase your value. As a Board, our focus is on promoting our profession and increasing the value of the teams and individuals within the golf course grounds industry. We feel there is opportunity for improvement in this area. We have begun an initiative which will include the collection of compensation data, the analysis of market trends and the branding of our profession. Currently, we are using video and social media as a tool to broadcast our message, which includes sustainable jobs and attractive career paths.

So please help this initiative by being prepared. Be prepared, at a moment's notice, to promote the golf courses we work on and the people who steward them. There may be more in it than you think!

I wish everyone the best of luck this coming season and please do not hesitate to contact me or anyone on the board with any suggestions or concerns regarding the Association and how we are doing.

Thanks again for your time and much success in 2022,

Brian

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CONGRATULATIONS AND GOOD LUCK TO THESE MEMBERS IN THEIR NEW POSITIONS

Chad Brown, Superintendent at Norfolk Golf Club, formerly Superintendent at Harmon Golf & Fitness Club

Keith Daury, Superintendent at Stone Bridge Country Club (NH), formerly Assistant at Lexington Golf Club

Brian Marfione, Superintendent at The International Golf Club, Pines Course, formerly Superintendent at Sterling National Country Club

Greg Pinto, Superintendent at Rockland Golf Course, formerly Superintendent at Agawam Hunt (RI)

WELCOME NEW MEMBERS

David Antunes, Affiliate, Hunter Golf Irrigation

Matthew Campbell, Assistant Superintendent, The Country Club

Corbett Incorporated, Friend of the Association

John Daniels, Honorary, USGA Agronomist

FMC Corporation, Friend of the Association

Tyler Galimi, Assistant Superintendent, Hopkinton Country Club

Carlton Henry, Superintendent, Dedham Country and Polo Club

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Michael Marino, CGCS, Affiliate, FMC Corporation

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Patrick Morrison, Student, Delaware Valley University

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Paul Perry, Superintendent, Stone Meadow Golf

William Rocco, Superintendent, Salem Country Club

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Back Issues!



Past issues of the NEWSLETTER are available using this link: <http://bit.ly/GCSANenewsletters>.

As in the past, *The Newsletter* continues to invite Affiliate members to submit a press release about new personnel, new products or a company bio. We will print each and every release **free of charge**. This is a great way to advertise for free. Who said nothing in this world is free? Free advertising to better your company, wow what an offer.

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Thoughts From Your Executive Director *by Don Hearn*

Those who attended the 2022 Annual Meeting had a preview of the video that is now available for all to see. The finished product is the result of many hours spent by a professional videographer producing this video of courses, maintenance being performed, Association members, friends, and golfers. The board of directors served as critical eyes and ears on the project that was spearheaded by Brian Skinner. The video is intended to help golfers, and others who might be curious, to get a peek “behind the scenes” of some of what it takes to prepare and maintain a course for their enjoyment. To view the video [click this link](#).

The 2022 Annual Meeting of the Association was held in March at the Renaissance Hotel at Patriot Place in Foxborough. This meeting is usually held in January, but the pandemic forced the change. The meeting featured Pat Jones who spoke about many aspects of the golf industry. He did not hold back and let his opinions be known. The election of the board of directors took place.



Mike Murphy (left) and Kevin Doyle

Last month Mike Murphy and I traveled to GCSAA Headquarters in Lawrence, KS. The purpose of the travel was to attend the 2022 Chapter Leader/Executive Symposium. 31 people met with GCSAA staff and each other to learn more about GCSAA, what our international organization has to offer to support its members and to learn from others who experience the same challenges.

Every time I attend this symposium I take a photo of the GCSA of New England board member standing beside the sculpture of Old Tom Morris. This year Kevin Doyle, GCSAA's Northeast Regional Staff member joined Mike for the photo. I usually point out the creativity of superintendents by mentioning that the artist who created this sculpture was a golf course superintendent named Bradley Pearson.

Brad passed away in April 2029. The picture of the plaque tells the history of the sculpture. [This link](#) tells the history of Brad and his accomplishments.



Brian Skinner, CGCS President

Russell Heller (left) and Mike Murphy

Officers and Directors elected were:

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Brian Skinner, CGCS, CPO - Bellevue Golf Club

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Colin Smethurst, CGCS - Hillview Golf Course

DIRECTOR

David Stowe, CGCS - Newton Commonwealth Golf Course

PAST PRESIDENT

Peter Rappoccio, CGCS – Concord Country Club

Thoughts *(continued)*



From left, Peter Rappoccio congratulates Jim Cohen – 25 years, Brian Skinner – 25 years and John Paul Jones – 50 years on their many years of membership.

The Distinguished Service Award was presented to Russell Heller, CGCS and he spoke about the importance of the award. His humor shined as he shared his acceptance of this recognition.

Pins for 25 and 50 years of membership were awarded. The following were recognized for their 25 years of membership:

Brian Cromack	Quidnessett Country Club
Brian Skinner, CGCS	Bellevue Golf Club
James Cohen	Harrell's
Leonard Curtin	George Wright golf Course
Matthew Grady	Unattached
Stephen Cadenelli, CGCS	Retired

John Paul Jones and Frank Murphy were recognized for their 50 years of membership.



Brian Skinner left, presents the Past President's plaque to Peter Rappoccio At the Providence Show

NOTICE

Bob Dembek, Golf Chair is looking for meeting sites in August and September. It's becoming more difficult to obtain sites for our events and we need your help. Those who have hosted an event have, without exception, said they enjoyed having their fellow superintendents and industry partners play their course or stop in to mingle for a while. It made them feel like they had given something to the Association that benefited many of our members, they met people they otherwise wouldn't and they had the opportunity to let their peers see the good work they had been doing. Please contact **Bob at lexgc@rcn.com or 978-870-8669** and let him know if you can help.

The 25th Annual New England Regional Turfgrass Conference & Show, the "Providence Show" took place at the Rhode Island Convention Center, March 8-10. It was well attended, people seemed to be happy to be there and most were looking forward to 2022.

Springtime Excitement, Stress and Anxiety *Greg Cormier, CGCS*

Spring is always an exciting time in New England. Your routine changes, the weather changes, your staff size changes and your operation goes from closed, or reduced services, to full swing and max capacity of golfers. If that change doesn't trigger some level of excitement, or anxiety then you might not be human.

Speaking from experience, I have felt this excitement for years. It started back in

high school when we would gear up for spring baseball season. It continued into my early years on the golf course, recently as a Superintendent and now as a Client Rep. What I have found is that we need that excitement to get fired up again for the season. To hire and train staff, we need to be the most excited on our teams. If we want our team to be excited, we must lead by example.

At times that excitement can turn into anxiety and can keep your brain occupied. That "to do" list keeps growing by the day, but Mother Nature isn't allowing you to check many things off. Maybe there is an employee on your team that isn't pulling their weight, but your afraid to lose a staff member during these times. "Maybe if I can just keep them around through aeration". How many times have you said or heard that line?

I have found that dealing with these problems when they first arise will benefit you and your mental health in the long run. If you know that your team is falling behind getting the golf course ready due to low staff and weather, then be sure to set the expectations for your golfers. Always strive to under promise and over- deliver, not the other way around.

Call a meeting with that team member and let them know what your expectations are, and that they aren't meeting them. Don't just get mad at them and hold it in, until you explode during aeration and fire them.

In addition to dealing with issues as they come up it is also important to take care of yourself. We all work in a field where there is no workday, there is no end, there is no one that will tell you to go home and rest. Be sure to carve out time from your schedule to take time for yourself. Only you know what that looks like. For some it's getting away from the course. For others it's eating lunch in a quiet corner of the property or crushing a bucket of balls once in a while. In order to lead your team to a successful season, you must take care of yourself. It starts with the mind and preventing yourself from becoming overwhelmed.



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March 24, 2022

To the GCSANE Chapter,

It's an exciting time of year as maintenance activities ramp up to get golf courses ready for the busy season ahead. Unfortunately, the unfavorable weather experienced this winter has resulted in winter injury at a significant number of courses in the area. The worst damage has occurred on *Poa annua* putting surfaces, but other areas may have also experienced issues.

The extent of the damage varies by location, but it's important to know that if you have winter damage your facility is not alone. The spotty nature of winter injury can be perplexing to explain. This has always been the nature of this type of injury, especially in cases like what we're seeing this year where greens appeared healthy immediately after snowmelt, but then damaged areas became evident as the turf and soil thawed.

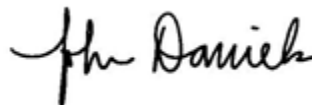
The focus now should shift to a recovery program. These will involve the use of covers and darkening agents to elevate soil temperatures, maintaining adequate soil moisture, and aggressive seeding programs. In some cases, sod may be needed once the full extent of the damage is understood.

Pressure will be felt to open severely damaged greens to play, but this should be avoided. Traffic from play will set back the recovery efforts and prolong the period to restore surfaces to their normal condition. To help plan an effective recovery program, contact your USGA agronomist.

Sincerely,



Adam Moeller
Agronomist and Director, Education
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John Daniels
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The mission of the Green Section, the agronomic and sustainability department of the United States Golf Association, is to distribute innovative tools and solutions that improve the quality of the on-course experience and reduce the use of critical resources by golf courses.



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March-April 2022





We often talk about the networking and camaraderie this industry exemplifies. Sharing knowledge among ourselves is standard practice. Mother Nature dished out anxiety to most, while some came through in good to great shape, others did not. Superintendents through a swath of central New York, the Capitol District of Albany, Western Massachusetts down through Connecticut, areas of New York and north-

ern New Jersey are dealing with damage of various proportion. On Friday April 1st, Springfield Country Club (MA) superintendent Jedd Newsome put together a roundtable meeting, as he did in 2015, inviting area superintendents with Dr. Michelle DaCosta of UMass and John Daniels regional USGA agronomist to add their input. Club officials were asked to attend and meeting content was geared towards all attendees.



DaCosta gave a summary of the winter weather including the warm December, very cold January, followed by the roller coaster February. Data sensors being utilized by ongoing research showed January soil

temp (at a half inch depth) less than twenty degrees, followed by a February that included three or four events where soil temperatures reached 40-60 degrees!



DaCosta noted these swings in temperature are more in line with March, not February. Huge moisture releases were measured by the sensors in February, even under ice, creating potential for injury

to poa which de-hardens easily with temperature and easily absorbs moisture.

Sensors under ice showed less fluctuation in temperature and much less moisture release, yet the drop in oxygen levels were severe. Noting how carbon dioxide levels have yet to be addressed, DaCosta engaged Mohawk GC superintendent Andy Eick regard-

ing his green tied to this data. Eick explained to the attendees that the green under ice turned out to be the best green on the property to date.



Daniels discussed results of his many site visits from New York to Massachusetts, and many in-between. The importance of sunshine in fall turf health headed into winter and spring recovery was high-

lighted. Daniels stressed the importance of photos in documenting these difficult growing conditions.

Use of permeable and impermeable covers was discussed. Daniels addressed the benefits of each in preventing damage, issues that can occur, and use of covers to aid in recovery. Newsome highlighted his use of covers on his historically difficult greens and the success this effort has made.

Newsome wrapped up the day by noting during his 13-year tenure at Springfield CC, he's endured six years of significant winterkill issues. He extended his thanks to the club for their patience and understanding during recovery. He stressed the need to stay off the greens until they recover while admitting the pressure on municipal and public facilities might make that impossible. Newsome's mantra for keeping the stress off the greens, by June first the golfers will all have forgotten what happened.

Newsome thanked the club for allowing him to host, the Tom Irwin Company for providing lunch, and all who attended. There were great questions with fantastic information provided by speakers and attendees alike. Knowing you are not alone doesn't ease any of the pain and anxiety the situation places on superintendents, it does alert others of the circle of peers with whom you can look to for assistance and support. A rising tide raises all ships, let the healing process begin.

Visit [@JeddNewsome](#) on twitter for a YouTube link to watch the event.

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GCSAA Update *by Kevin Doyle*

[Access the Facility BMP tool»](#)

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GCSAA's Golf Course Environmental Profile

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Applicants must be enrolled full time at an accredited institution of higher learning, or for high school seniors, they must have been accepted at such an institution for the next academic year.

In addition, award winners are ineligible to apply the year following their award, but can reapply after a one-year hiatus.

Students must complete the application form and supply the following:

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Beth Guertal, Ph.D.

April 14 @ 10 a.m.

[Understanding and Managing Pythium Root Diseases in Turfgrass presented by FMC](#)

Lee Butler and Jim Kerns, Ph.D.

April 28 @ noon

Again, if I can be of any assistance, please feel free to contact me.

Kevin Doyle

GCSAA Field Staff

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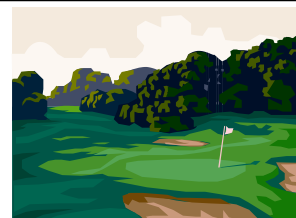
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March-April 2022





Apiarism

Bees, mites and unintended consequences

Beekeepers may have accidentally assisted a parasite that plagues their charges

FEW PESTS are more feared by apiarists than the aptly named *Varroa destructor*. This mite, originally a parasite of *Apis cerana*, the Asian honey bee, has plagued *Apis mellifera*, *cerana*'s western cousin, for only 50 years or so—having arrived in Europe via what was then the Soviet Union and subsequently spread to both North and South America. But a plague it is. *Varroa* is now so common that the mites are found in nearly every hive in the United States.

Why *Apis mellifera* has proved so vulnerable is debated. It might be the case that, being naive to the new parasite, *mellifera* had evolved no defences against it. Individuals of *Apis cerana*, by contrast, constantly groom each other to remove such ectoparasites. But work by Alberto Satta and Francesco Nazzi of Sassari and Udine Universities, both in Italy, suggests an additional possibility. This is that beekeepers themselves have also, albeit unwittingly, helped the mites to multiply.

A *Varroa* infestation often starts when bees from a neighbouring colony raid for

its honey an infested hive that can no longer defend itself. Pregnant female mites hop on the raiders and are carried back home by them. Bees use the hexagonal cells of their waxy combs for two jobs: storing honey and raising youngsters. The invaders hop off the bees that have given them a lift, head for an area of cells prepared by the queen for youngster-raising, and lay their own eggs on bee larvae there.

Both the mother mites and, when they have hatched, their offspring, feed by biting through their hosts' cuticles and sucking out bodily fluids. Some larvae are thus killed outright. Survivors are weakened, making them vulnerable to infections. And that vulnerability is enhanced by open wounds left by the parasites' feeding, which are exploited by pathogens carried

by the mites. These are known to include deformed-wing virus and acute-bee-paralysis virus. Some researchers think that *Varroa* is also implicated in colony-collapse disorder, in which the bulk of worker bees desert a hive for no apparent reason.

Though honey bees are not, contrary to popular mythology, declining in numbers around the world, *Varroa* mites do thus cause serious trouble for apiarists, particularly in the West. Better understanding of how to keep the critters under control would therefore be welcome. And Dr Satta and Dr Nazzi, writing in the *Proceedings of the Royal Society*, think they have found a possible new approach.

A sticky question

A crucial factor in the *Varroa* plague is, in the two researchers' opinions, a substance called propolis—or, rather, a lack of it. Propolis is a sticky material that bees make from a mixture of wax and resins gathered from a wide variety of plants. They use it to coat the inner walls of their hives, to plug holes in the hive wall that might otherwise admit predators, and to encase the bodies of those intruders which do manage to breach that wall and have subsequently been stung to death. Evidence is mounting, however, that propolis serves as more than just a building and embalming material. This evidence indicates that it also has antimicrobial properties which help bees fend off a range of dangerous diseases in-

→ Also in this section

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63 Geomagnetic archaeology

cluding American foulbrood, a bacterial infection, and chalkbrood and noseosis, which are caused by fungi.

But microbicides are not necessarily arachnicides. So there was no obvious reason to suspect propolis would be effective against mites as well, until, in 2017, a team led by Dr Satta made the curious finding that hives invaded by *Varroa* respond by sending out more foragers than usual to collect plant resins. Since the only known use bees have for these resins is making propolis, this suggested to Dr Satta and Dr Nazi that the hives in question were employing the stuff to fight their infestations. They therefore rounded up a group of colleagues and got to work on the details.

They began by analysing honeycombs that had been prepared by queens as nurseries. They confirmed that propolis had indeed been applied to brood cells in these. In particular, they showed that the applied material was rich in compounds called phenols. These are pretty toxic (phenol itself, the group's eponym, was the first widely used antiseptic) and would almost certainly be bad news for mites.

To make sure, the team reared honey-bee larvae in artificial cells in a laboratory. They treated some cells with chemicals found in propolis. Others, not so treated, acted as controls. In both of these sorts of cells, a single pregnant mite was also introduced. A third group of cells were treated with chemicals but kept mite-free, to determine whether the chemicals harmed larval development in any way.

The upshot was that in the treated cells, 19% of newly hatched mites died, whereas in the untreated cells only 6% did. And the effect was yet more pronounced when Dr Satta and Dr Nazi went on to monitor the subsequent fertility of the survivors. Of those mites which outlived their initial exposure to chemicals found in propolis, only 26% went on to reproduce. In contrast, 46% of surviving mites in the chemical-free cells reproduced successfully. The chemicals appeared to have no effect on the development of the bee larvae.

It seems pretty clear, then, that propolis helps protect against *Varroa* infestations. But this raises the question of why bees do not make more use of it in their brood cells. A plausible answer is that the ability to do so has been bred out of them.

Until the revelation of its antimicrobial properties, beekeepers saw propolis as nothing but a nuisance. In particular, when hives with removable frames, for the easier collection of honey, were introduced in the mid-19th century, bees retaliated to this enhanced pillaging by pasting propolis over those frames, making them hard to extract. To counter this behaviour, generations of beekeepers have favoured colonies that produced less of the stuff. As a result, modern bees are fairly economical

with its manufacture and deployment.

Reversing the consequences of such selective breeding will not be easy. It might possibly be done by hybridising domesticated *mellifera* with wild strains of the species, or with other species of *Apis* that have not lost the knack of making propolis. For that to work, though, would require a concerted effort spread over many places.

A more immediate response might be to make it easier for bees to gather the phenol-rich resins which do the mite-killing—perhaps by growing relevant plants near hives. Alternatively, a synthetic version of propolis, introduced into hives by human hand, might then be deployed by the workers in mite-unfriendly ways. Regardless of the exact path out of the mess, though, the sad tale of the honey bee, the propolis and the *Varroa* mite looks like an object lesson in the law of unintended consequences. ■

Marine propulsion

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Nature does not use propellers. So why do people?

NO KNOWN SEA-CREATURE uses propellers. Perhaps that is because they are too difficult to evolve from existing animal body plans. Or perhaps it is because they are not particularly good at doing what they do. When pushing water around for propulsive purposes, bigger is not only more powerful but also more efficient. But the bigger a propeller is, the harder it is to accommodate to a hull and the more it risks adding to a ship's draft and thus snag-

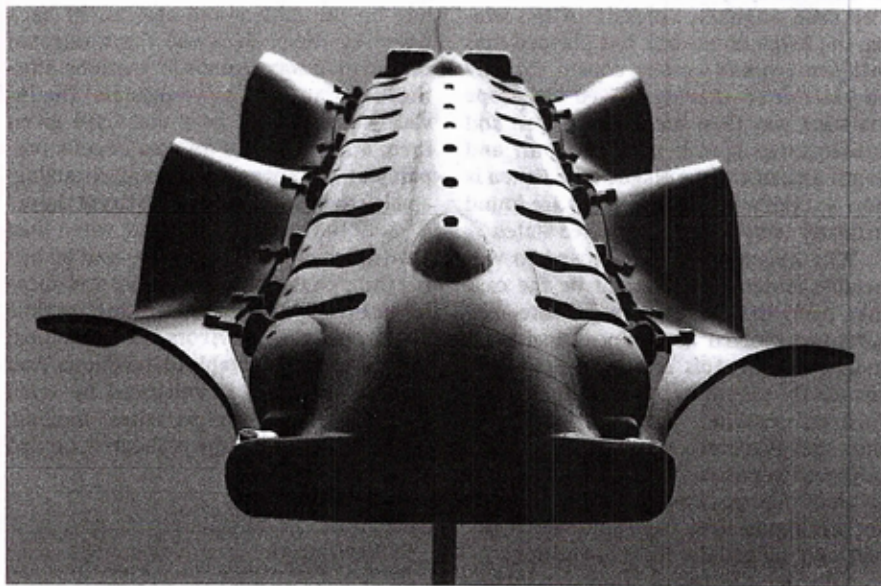
ging the seabed. Even the biggest ships' propellers are therefore only around ten metres in diameter.

Fins and flippers, by contrast, extend sideways, so do not suffer from such geometric restrictions. That means they can get big enough to push a lot more water around. Nor, unlike propellers, need they be rigid. In fact, being flexible is almost part of the definition (a rigid fin might better be described as an oar). They are therefore not easily damaged by contact with the seabed or other objects. Fins have thus become evolution's go-to accoutrement for marine propulsion. From fish, via ichthyosaurs, to dolphins and whales, they turn up again and again. So, from plesiosaurs and turtles to seals and penguins, do their cousins, flippers.

In light of this evolutionary vote of confidence in fins, ships' propellers look like a technology ripe for a bit of biomimetic disruption. And that may now have arrived in the shape of Benjamin Pietro Filardo, an ex-marine biologist and architect who was looking into ways of designing devices to extract power from water currents. His plan was to use flexible materials, so that they could easily shake off any debris which got entangled in them. He then realised that the undulations involved might also usefully be turned into thrust.

Mr Filardo has put his money where his mouth is. His firm, Pliant Energy Systems, based in New York, has developed Velox (pictured), a prototype propelled by flexible fins, port and starboard, that are reminiscent of yet another animal's approach to swimming—the undulating mantle of a cuttlefish. Velox can travel on the surface, underwater, and also across mud or ice, with its fins then acting in the manner of a pair of robotic caterpillars.

According to Mr Filardo, Velox produc- ➤



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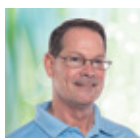
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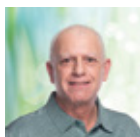
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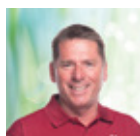
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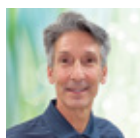
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*** Deadline for ads:** *The first of the month for that month's issue.*

Ad Preparation Specifications:

File Specifications for Ads Supplied in Digital Format: Files should be created at 300dpi at the correct size for that ad. Formats preferred are JPG and PDF. Full color is available with all ads. Please send ads to Don Hearn at the email address below. The newsletter is published in February, April, June, August, October, and December.

Send all Newsletter ads to:
Don Hearn, Executive Director
300 Arnold Palmer Blvd., Norton, MA 02766
Email: donhearn@gcsane.org O. 774-430-9040

March-April 2022

