

WINE Talk: May 2021

The newsletter of Living Wines: Edition 98

We hope you enjoy this newsletter and remember that all past newsletters are available to read on our Living Wines Web site.

For a full list of wines currently in stock and their prices see:

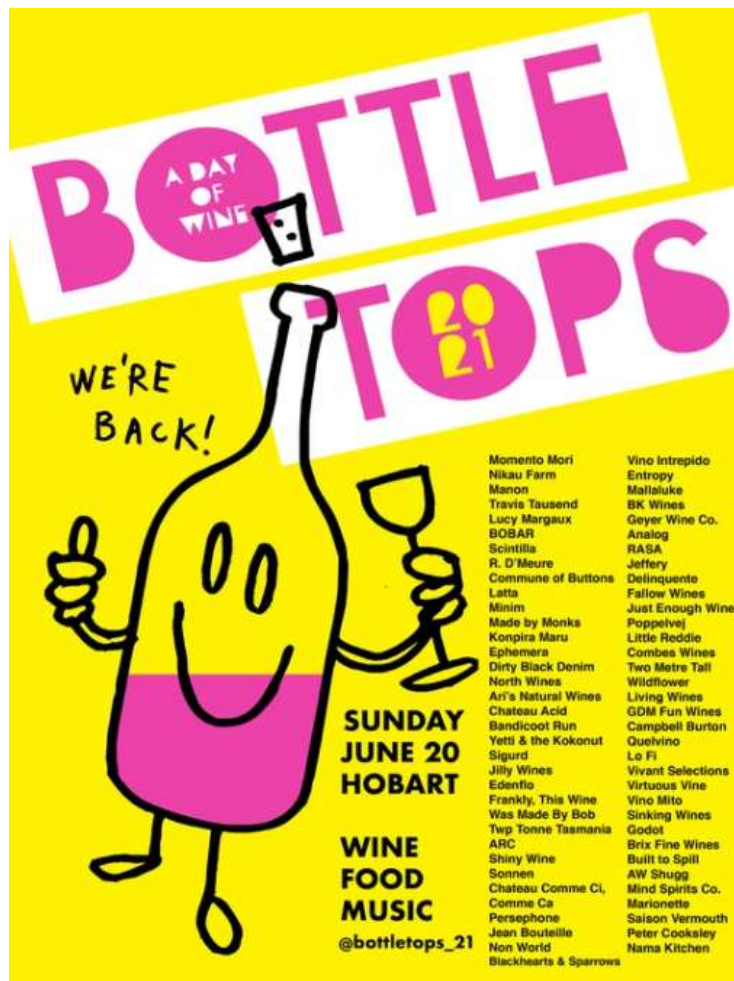
<https://livingwines.com.au/shop/>

There is a link to our order form for these packs and any other wines at the end of this newsletter. But there's no need to use the order form. Just send us an email listing the wines and/or packs you would like to order if that suits you better. Or we are always happy to put together a selection for you if you give us a rough idea of the type of wines you like and a budget. We confirm orders by return email before processing them.

If you're not personally known to us or haven't already, please also provide your date of birth so we stay legal (a requirement of Tasmanian legislation.) You must of course be over 18 years of age to order.

Hobart's Bottletops Festival is Returning in June

We're delighted that Hobart's wonderful natural wine festival Bottletops is returning this June. Like seemingly anything that involved more than two people it was cancelled last year. This will



be its fifth year and given each year is better than ever we can only imagine what it's going to be like when so many people meet up for the first time in over year.

Bottletops is also running a small bar during the afternoon, which will extend beyond the close of the tasting, and which will no doubt have plenty of hard to find wines.

The list of producers and importers already committed is extraordinary. You can find out exactly who is going to be there and join the waitlist in case any more tickets are released [here](#). In the meantime, this poster give the situation as of now. Possibly things might change if the Victorian covid situation worsens but hopefully they will get on top of it during the short sharp lockdown just announced.

As well as wine tastings there is music and food and, as always, the promise of a number of "off" events over several evenings before the festival. From what we've heard there are going to be some very special events.

If you're thinking of coming to Hobart just for Bottletops it's worth coming a couple of days earlier so you don't miss out on the extras.

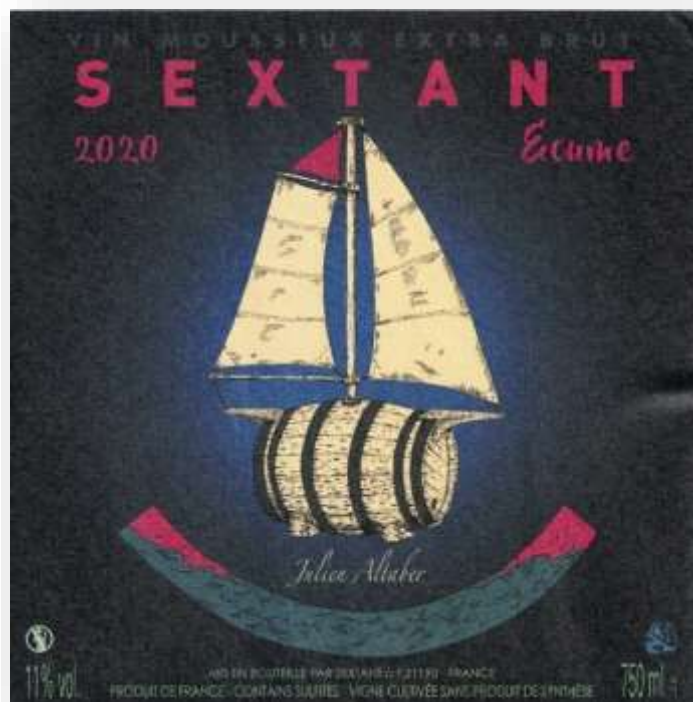
But don't delay – tickets to events and restaurant reservations sell out quickly, flights become very expensive and, because the Bottletops weekend is also the finale of Dark Mofo, accommodation is already tight.

For more information follow [@bottletops_21](#) on Instagram or email bottletopstickets@gmail.com.

If you are unable to get there but would like a memento anyway there is very good quality merch available including T-shirts, Sweat Shirts and Totes from the following link:

bottle-tops-a-day-of-wine.myshopify.com

Pack 1: Sextant and Derain New Arrivals (Discount 15% - 4 packs only)



Most of these wines sold out a few days after we released them, mostly to customers who had asked in advance for information about them when they arrived. But we decided to reserve four bottles of each of these wines for four packs to offer in the newsletter.

There are four Sextant wines – Bourgogne Blanc and Rouge and Aligoté from 2019 and a pet-nat Ecume, which is a blend of Aligoté and Pinot Noir and is from the 2020 vintage, so only just released in France as well as here. There are two Derain wines, each classic cuvées of Dominique Derain's which Julien Altaber continues to make respecting Dominique's approach. The Bourgogne Rouge is Le Riaux, the freshest Pinot Noir made for early drinking and the white is La Combe, which comes from a lieu dit of that name, near Puligny-Montrachet. These are both very rare wines.

- Sextant - Julien Altaber Bourgogne Rouge 2019
- Sextant - Julien Altaber Bourgogne Blanc 2019
- Sextant - Julien Altaber Bourgogne Aligoté 2019
- Sextant - Julien Altaber Ecume 2020
- Domaine Derain Bourgogne Les Riaux 2019
- Domaine Derain Bourgogne La Combe 2019

Note: if the pack is not sold before the next newsletter we will release any of the otherwise sold out wines for purchase individually.

The RRP for this selection of 6 wines is \$384 but the pack price is only \$312 including freight to most Australian cities.

Pack 2: Newly Arrived Champagnes Pack (Discount 15% - 2 packs only)



This pack has several different cuvées of Roland Piollet’s Champagnes and one bottle of his wife Dominique’s Marie Courtin, the sublime Efflorescence from the 2014 vintage. Efflorescence is a Blanc de Noir which is already otherwise sold out.

Roland Piollet and Dominique Moreau grow most of the grape varieties which are allowable for making Champagne and the pack includes a 100% Pinot Blanc (Colas Robin from the 2014 vintage), a 100% Pinot Meunier (Mepetit from the 2016 vintage), a rosé (Les Protelles 2018) and two bottles Roland’s classic Reserve cuvée, which is a blend of Pinot Noir and Chardonnay.

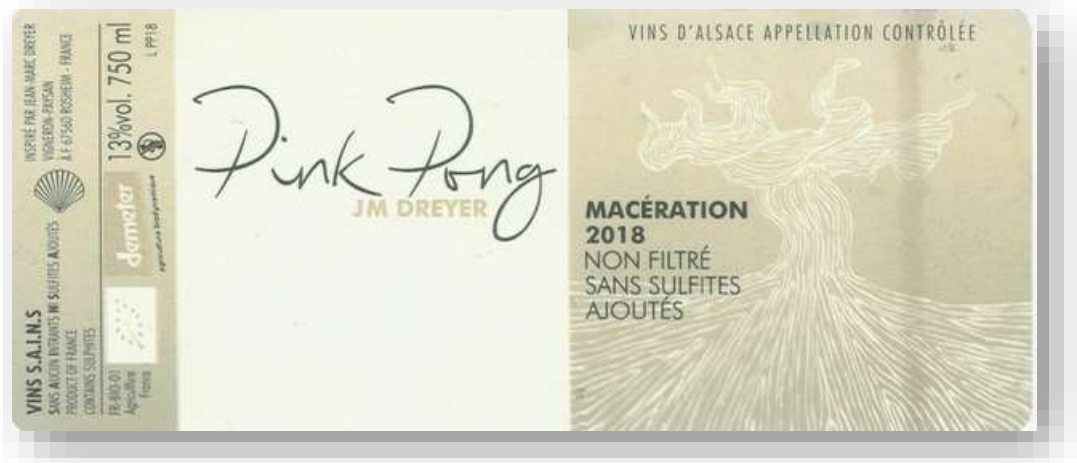
- Piollet Champagne Cuvée de Réserve – 2 bottles
- Piollet Champagne Colas Robin 2014
- Piollet Champagne Les Protelles 2018
- Piollet Champagne Mepetit 2016
- Marie Courtin Champagne Efflorescence 2014

Note: if the pack is not sold before the next newsletter we will release any of the otherwise sold out wines for purchase individually.

The RRP for this selection of 6 wines is \$608 but the pack price is only \$517 including freight to most Australian cities.

Pack 3: Stranded Asset Pack (15% Discount!)

Note: One pack only



This is another pack of wines that we've removed from our list but actually still had the odd bottle of – not enough to put it back on the list once we realised.

It happens for various reasons including miscounting and cancelled reservations or even an occasional relinquishment from our own intended private supply. It's an eclectic mix with a light red, a fresh white, a rosé and another pinkish wine (Pink Pong), and two serious Jura wines.

- Le Temps des Cerises La Peur du Rouge 2019
- Jean-Marc Dreyer AOC Alsace Pink Pong 2018
- Les Cigales Dans La Fourmilière Marée Basse 2018
- Domaine de la Loue Arbois Pupillin AOP Savagnin 2017
- Domaine de la Loue Le Rouge 2018
- Henri Milan Haru Rosé 2019

The RRP for this selection of 6 wines is \$301 but the pack price is only **\$256** including freight to most Australian cities.

Pack 4: Mixed Pack with some Cellared Unicorns (15% Discount)

Note: Two packs only



This pack consists of a very eclectic range of wines. It is not often that we get to have two spare bottles of a wine from Alice and Olivier de Moor, but we were able to keep two aside for this pack. It is their lovely 2018 Chitry which is a small region on the southern edge of Chablis and hence shares the flinty limestone that Chablis is famous for.

We then have two very delicious sparkling wines. The first is a pet nat from Hervé Villemade which he made as a blend of the very rare Menu Pineau grape variety along with equal parts of Chenin Blanc and Chardonnay. The other sparkler is from Julien Altaber who has taken his skin contact wines one step in recent years with the release of a sparkling skin contact wine made from the Aligoté grape variety. This is the first vintage we received. (2020 arrives in August!)

The Beaujolais Blanc from Jean-Paul Brun has come from the cellar and is almost 10 years of age which will be perfect for this Chardonnay.

The final two are lightish reds, with the Kumo made from Grenache but with a light touch from Theo Milan so that it reflects the Japanese name on the label – it is light as a cloud! And the Le Ban is from one of the best vineyards in Saint Aubin. Julien has done a great job in making this wine complex but light in style!

- Hervé Villemade Bulles Blanc 2015
- Sextant - Julien Altaber Skin Bull 2017

WINE Talk – the newsletter of Living Wines

- Alice and Olivier de Moor AOC Bourgogne Chitry 2018
- Jean-Paul Brun Beaujolais Blanc 2012
- Henri Milan Kumo 2018
- Domaine Derain Le Ban 2019

The RRP for this selection of 6 wines is \$349 but the pack price is only \$297 including freight to the most Australian cities.

Pack 5: Last Bottle Pack (20% Discount)

Note: One pack only



This pack has a rosé, a Champagne, two white wines (Samuel Boulay's Rappapéo is 50% Roussanne and 50% Viognier and Domaine Saint Nicolas Haut des Clous 2012 is Chenin Blanc), and two reds. The Domaine Les Grandes Vignes Cabernet Breton is Cabernet Franc and Domaine St Nicolas Reflets 2011 is a blend, but predominantly Pinot Noir.

- Henri Milan Haru Rosé 2018 (a blend of Cabernet Sauvignon and Mourvèdre)
- Champagne Piollot Père et Fils Colas Robin 2014 (disgorged July 2018). This is from a previous shipment, not the one that just arrived, which has some more recently disgorged Colas Robin from the same vintage which we are treating as a different wine.
- Samuel Boulay Rappapéo 2016
- Domaine Les Grandes Vignes Cabernet Breton 2015
- Domaine St Nicolas Reflets 2011
- Domaine Saint Nicolas Haut des Clous 2012

The RRP for this selection of 6 wines is \$311 but the pack price is only \$249 including freight to most Australian cities.

Pack 6: 3*2 Pack – 2 whites, 2 reds, 2 sparkling (15% Discount)

Note: Two packs only



With two bottles of three different wines this pack offers a little more flexibility than what comes with single bottle packs.

You can open one now and cellar another or open one now and then, having tasted it, use your knowledge of the wine to work out the best matching with food at a future dinner. Or it's a chance in a large group (Covid-willing) to open a couple of bottles of the same wine.

There are two bottles of a beautiful sparkling wine, Bulle Blue 2016, which is a Blanc de Blanc from one of our Jura producers, Domaine de la Loue.

There are two bottles of Domaine Derain Bourgogne Les Riaux 2019, a Bourgogne Rouge made from younger vines for earlier drinking.

And there are two bottles of the Milan Papillon Blanc 2018, a complex white with no added sulphites, which is a blend of Grenache Blanc, Rolle, Roussanne, and Marsanne.

- Domaine de la Loue Bulle Blue 2016 (2 bottles – sparkling)
- Domaine Derain Bourgogne Les Riaux 2019 (2 bottles – red)
- Henri Milan Papillon Blanc 2018 (2 bottles – white)

The RRP for this selection of 6 wines is \$392 but the pack price is only \$333 including freight to most Australian cities.

Pack 7: Immediate Stranded Assets Pack (15% discount)

Note: Two packs only



Well, this is a bit embarrassing. We thought four of the Derain wines in this pack (three Domaine Derain wines and one of Dominique Derain’s retirement wines) were sold out and removed them from our website and then discovered an error in our allocations.

Apologies to anyone who may have asked about these wines or looked at the website and not ordered them because they were sold out. But here we are with two bottles of each of those four wines available so we made another pack. We’ve included those, the delicious Sextant Po à Po (macerated Aligoté), which we still have a few bottles of, and a bottle of 2019 Das Nubes, Dominique Derain’s other retirement wine, to make an unanticipated 6 pack.

Tutti Frutti Ananas’ Dominique Derain D’rain D’rain 2019 is one of Dominique’s retirement wines. It’s a lively juicy blend, mainly of Grenache from the south of France with a little Syrah, which Dominique makes at the iconic 9 Caves cellars in Banyuls sur Mer. This is the second vintage.

Dominique Derain’s Das Nubes is his other retirement wine. It’s a Pinot Noir he has made now for several years in Chile (although he didn’t go in 2020 thanks to Covid-19). It’s always made to be fresh and easy to drink young.

The others are Domaine Derain wines from the 2019 vintage. There are three whites - the Derain 2019 Aligoté and two Bourgogne Blancs – Landré (from a 0.3 hectare plot) and Saint-Aubin, which comes from an area of gravelly soil that used to be part of the cuvée En Vesvau but Julien Altabe has decided to separate it. The village of Saint-Aubin is renowned for its white wines and these exhibit a clear line of acidity. These are special, limited wines.

WINE Talk – the newsletter of Living Wines

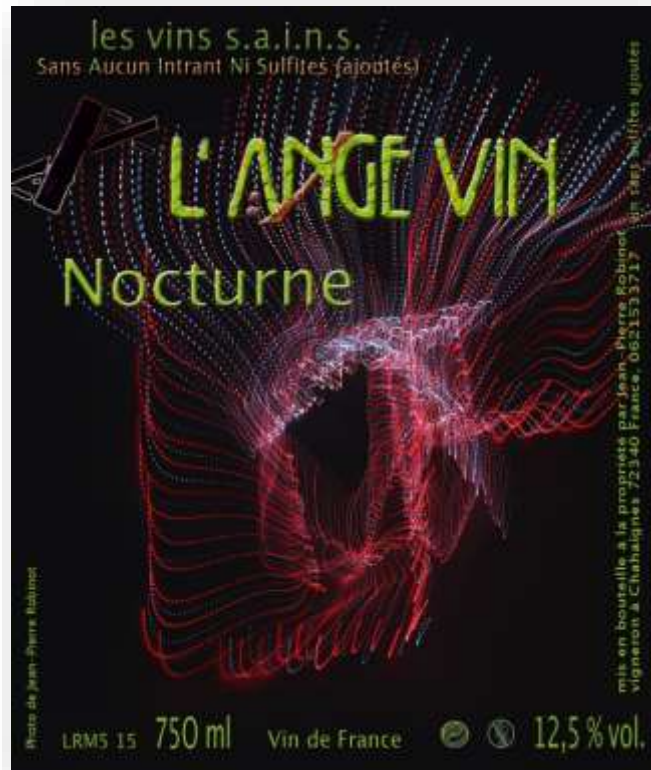
Its origin may be accidental but we think this serendipitous pack is actually a delicious, eclectic mix with whites, reds and even one orange wine. It's the whites that are likely to be more profound and totally suited to roast chicken and the reds which are going to be fun.

- Tutti Frutti Ananas - Dominique Derain D'rain D'rain 2019
- Domaine Derain Bourgogne Aligoté 2019
- Domaine Derain Bourgogne Landré 2019
- Domaine Derain Saint-Aubin Blanc 2019
- Dominique Derain Las Nubes 2019
- Sextant Po à Po 2019

The RRP for this selection of 6 wines is \$440 but the pack price is only \$374 including freight to most Australian cities.

Pack 8: Rarities Pack (15% Discount)

Note: One pack only



This pack is a mix of stranded assets and also a couple of wines we released from our pending personal collection (the Robinot Nocturne and the Belluard Mondeuse).

Given the appellations it goes without saying that the Fanny Sabre wines are Chardonnay. Domaine St Nicolas Soleil de Chine is a sweet wine made from Chenin Blanc. The Milan Kumo is a red, made with Grenache but, despite being from the south of France is made with a light touch. Nocturne is one of Jean-Pierre's Pineau d'aunis cuvées – in terms of depth it sits midway between Lumière des Sens and Camille. And, finally, the Belluard is a red made with 100% Mondeuse and one of the rarest wines we receive.

- Fanny Sabre Meursault Les Charmes 1er Cru 2017
- Fanny Sabre Beaune Blanc 2010
- Domaine St Nicolas Soleil de Chine 2007
- Henri Milan Kumo Rouge 2018
- Jean-Pierre Robinot Nocturne 2015
- Domaine Belluard Mondeuse 2013

The RRP for this selection of 6 wines is \$555 but the pack price is only \$472 including freight to most Australian cities.

An Update on What's Coming

Our new arrivals early in May didn't help much to add to our inventory because most have sold out, particularly all of the white wines. We are definitely finding that most of our wines are selling much more quickly in recent times.

Perhaps more people are interested in natural wine – the wonderful wine shops we work with have definitely had a lot to do with that. Or perhaps, because people can't travel overseas they are buying more wine to drink at home.

All we can say is if you're really interested in a particular producer's wines it pays to let us know in advance so we can make sure you know when they have arrived. It's especially important if it's a wine we decide to allocate and not advertise.

Our next shipment, which was due in mid May, has still not arrived yet. Delays are becoming more common so we will not be releasing any of them until some time in June.

There is a third and final delivery of the **Domaine de la Cadette Vézelay La Châtelaine 2018**, making it one of the most popular wines we have ever sold. We will be releasing this first, hopefully early next week. It's a very stable wine and we are confident about releasing it immediately. It's the only Cadette wine in this shipment. We'll hope to have some 2020 wines and more 2019 wines later in the year.

The shipment also has seven cuvées from **Les Capriades**, including for the first time, a pear cider. We also have two different magnums (Pepin La Bulle 2015, which is a blend of Chenin Blanc, Menu Pineau, and Chardonnay and Piège à ... Rosé 2018 (the same rosé we had in bottles last year). We're also especially happy to have more Pet Sec, which is the driest cuvée and the uniquely delicious Le Bulle Rouge (formerly known as BCF), which is a blend of three teinturier Gamay varieties (i.e. Gamays with red juice) – Gamay de Bouze, Gamay de Chaudenay, and Gamay Fréaux.

There are 11 cuvées from **Jean-Marc Dreyer**, including Sylvaner, Auxerrois, Riesling and Gewurztraminer in his 2019 Origin single variety macerated wines, two 2019 Pinot Noirs (Elios and Anigma), and the always delicious Ping Pong, a blend of macerated Pinot Gris and Pinot Noir.

We have the 2019 still whites and Mondeuse from **Dominique Belluard**, including this year a vintage of Le Feu, which was not made in 2018. In Gringet we have les Alpes, Le Feu and Pur Jus. There is also some Grand Jorasses, which is made from Altesse. The Belluard wines include 2017 Les Perles du Mont-Blanc and a little more Brut Zéro Mont-Blanc 2016. There are also, for the first time, a small number of magnums of Les Perles du Mont-Blanc, from the 2015 vintage.

We have a collection of ciders and a 500ml Calvados top up from **Julien Fremont**. This order includes some more of the Pomme de Paille 2018 and Grenier 2017, which sold out so quickly last year.

The shipment after that one is in transit so we can now confidently tell you what is in it. It's our biggest shipment since February last year and includes quite a number of producers.

There is a strong contingent from the Loire. There will be new wines from **Mosse**, including from 2020 Moussamoussettes, Magic of Juju, and Bangarang, plus a small top up of classic Chenin

Blanc cuvées. There's also a small shipment from **Toby and Julie Bainbridge** including the return after many years of Rouge Aux Levres and Les Jongleurs.

We will have **Domaine de la Garrelière's** 2020 cuvées of Gamay Sans Tra La La, some Rosé de la Cabane, Le P'tit Chenin and some 2019 Cendrillon.

The shipment also has wines from **Hervé Villemade**, including some newly-released 2020 Bovin Blanc and Rouge (the one litre bottles). It is a vintage he is very excited about, believing it's a much more traditional expression of the Loire. There is also some Romorantin (Cour-Cheverny Les Acacias 2010 (very limited) and 2018 (not quite as limited but still limited). Other classic cuvées include Cheverny Blanc Domaine 2019, La Bodice (a blend of 2018 and 2019 and a cuvée we have not had for some time), Cheverny Rouge Domaine 2020, and Cheverny Rouge Les Ardilles 2019.

And finally, we have our annual shipment from **Jean-Pierre, Noella and Juliette Robinot**, with Pineau d'Aunis, Chenin Blanc and fizzy things. This order also includes some new cuvées. This wine is likely to be allocated, or at least in part, so make sure you tell us in advance if you would like an offer.

From the south of France near Perpignan in Roussillon we have Laurent and Melissa's 2020 **Mataburro** wines, including the ethereal Mura Mura rosé, Iodine and Otium cuvées we had last year as well as two new wines.

From the same region (on the same pallet actually) there is our second shipment of vinegar from **Nathalie Lefort's La Guinelle**. All the vinegars are made from wines selected by Nathalie. They must be from organically grown grapes and made with no added sulphites. Initially she made vinegars from one of the classic wine of her region – the powerful red Banyuls. But now, in addition to that, she often takes wine from friends in other regions to turn into vinegar. From the south we'll have the classic Banyuls Rouge, a wonderful vinegar to use as the basis for a dressing for bitter winter leaves such as radicchio and escarole, Banyuls Blanc, and another based on Muscat à Petit Grain, another grape variety from the south of France. We also have a new bottling of oxidative Savagnin vinegar from our own Jura producer Domaine Bornard, Loire Valley Chenin Blanc from Lise and Bertrand Jousset and a vinegar made with Mauzac sous voile (i.e. from a barrel that was not topped up and instead protected by a layer of yeast) from Maison Plageoles in Gaillac. There is even a red wine vinegar from Fabrizio Luli in Italy.

We also have new wines from Julie and Ivo (**Les Cigales Dans La Fourmilière**). It's predominantly their jointly-made "drink first, ask later" 2020 Marée Basse and Ivo's 2020 Le Blanc, macerated Grenache Blanc, Muscat à Petit Grain, and Chardonnay, with smaller quantities of other wines including another jointly-made cuvée La Polonaise, a blend of muscat à petit grain and Chardonnay.

Finally, we have a top up delivery of wines from **Fanny Sabre**. It's mainly more of the delightful 2019 Bourgogne Aligoté and 2018 Bourgogne Rouge. But there are some other repeats – some of the village red and white cuvées we had earlier this year. But there are also a couple of new wines, including Cuvée Camille, a Blanc de Noir sparkling wine, which we have for the first time.

More things are on the way for delivery in August but there's plenty of time to share news of that in a future newsletter.

La Guinelle Vinegar – in pictures

In the “Update on What’s Coming” article above we have briefly described the amazing vinegars that will be available very soon from La Guinelle in France. We thought it might be useful to tell the story of our visit to this magic place to show you why we are so entranced by their natural products.

When you start to explore that part of southern France that is within sight of the mighty Pyrenees mountains there are many treasures to happen upon.

Remember that this is Catalan country on both sides of the border. Many people here, both French and Spanish, identify as Catalan first.

It’s an area of rugged beauty whether you look towards the Mediterranean or towards the mountains.

It was here that Nathalie Lefort found a small house surrounded by olive groves and vineyards outside the town of Cosprons which lies about half way between the beautiful coastal towns of Collioure and Banyuls-sur-Mer.

La Guinelle: A visit in 2019

We were lucky enough to be able to visit Nathalie at her home and production centre on a balmy Spring day in April 2019. With clear sunshine and no rain, it was perfect for exploring her operation. It was also perfect for sitting afterwards at an outdoor table at 9 Caves in Banyuls-sur-Mer for a very delicious lunch.

The drive to La Guinelle was uneventful despite some very narrow roads that we traversed through vineyards outside Cosprons. We eventually found the following sign welcoming us to La Guinelle. It’s very colourful and hard to miss.



The welcome sign for La Guinelle

WINE Talk – the newsletter of Living Wines

We parked the car and walked towards the Vinaigrerie to be greeted with the sight of dozens of barrels under shade and vineyards in the background in a narrow valley beside a small stream.



The vinegar barrels with vineyards in the background

Each barrel has a relatively large, covered opening which allows the beneficial bacteria to enter the barrel and carry out their fermentation magic.



The cloth covering over the hole in the vinegar barrel



There are many barrels

Once the fermentation is complete and the vinegar has gained the benefit of the time in barrel, the vinegar is transferred to glass demijohns and placed in the sunshine as shown below.



Glass demijohns of vinegar in the sunshine

As you leave this magic place you can swing by the small sales area to buy some vinegar or other paraphernalia.



The sales area

We will be receiving our next shipment of this precious vinegar all made from wine produced by friends of Nathalie mid-year 2021.

Warning: bacteria eat rocks!

This is the first of a two-part series of articles that looks at how soils are formed and how soils can provide an optimal environment for vines to thrive

The motivation for this story came from an unlikely place and it may be difficult at this stage to see how it has anything even remotely to do with wine, however, persevere and you will! We will tell you in the conclusion to this article why it has implications for the quality of natural wines.

Although neither of us has seen the film about the Titanic masterminded by James Cameron there was a documentary released many years later that contained fascinating footage of the sunken ship.

It also had numerous discussions with James Cameron who had continued to dive on the ship, even designing special deep-sea diving vessels to do so. However, it was not the ship itself that made us pay attention, rather it was the fact that the steel hull of the ship was decaying much, much faster than anyone thought it would at that depth.



Rusticles showing the decay of the Titanic's hull: [Wikipedia](#)

The information was brought to the attention of the world in 1991 when a group from the University of Halifax in Canada found that the ship was starting to be festooned with icicle-like spears of rust which they called rusticles because that is what they were made of – rust.

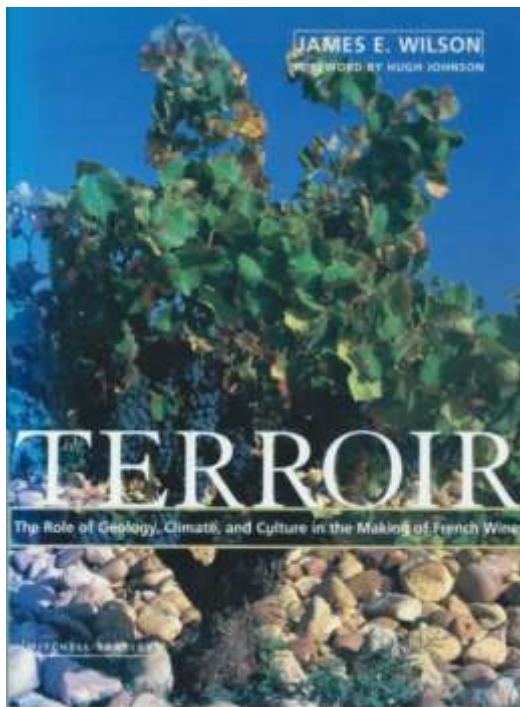
So how did these rusticles develop and why was the hull disintegrating? It turns out that it is all down to steel-chomping bacteria!

We now know this due to the work of Henrietta Mann and her team at Dalhousie University in Nova Scotia, Canada. They were able to identify the bacteria that was causing the damage and were also able to determine that the bacterium was unknown to science. They therefore gave it the name *Halomonas titanicae* after the ship they were eating.

This bacterium is able to survive the enormous pressures and the salty environment at the depths where the Titanic lays and do their work dissolving the iron in the hull.

And this made us think about the effect of bacteria on rocks and then to look to see if they may be a contributor to the “minerality in wine” debate which has never been satisfactorily resolved. After all, if bacteria can chomp through steel, they should be able to have a fair go at eating through even the toughest of rocks. As a result, we decided to go on a hunt for rock-eating bacteria!

The background



We first turned to the amazing geology book by James E Wilson entitled Terroir: The role of Geology, Climate, and Culture in the Making of French Wines. This book is a tour-de-force covering the geology of the French winemaking regions in extraordinary detail.

We went hunting for references in the book to bacteria and the production of soil. There were two references in the index that we thought might help, one to “Microorganism in soil” and one to “Minerals in soil”.

In discussing soils he asserts that “soils are simply rotted rocks” which have “weathered”. He describes the agents of mechanical weathering as “water, ice, heat, roots and gravity”. He also mentions chemical weathering which he attributes mainly to lichen and moss which create

acids that start to break down the rocks.

He then goes on to say that “the real activity is carried on by the very tiniest of creatures – microorganisms such as bacteria”.

He then goes on to say that as they die they release ammonium and nitrate ions which are beneficial for plants. But he then provides the two main benefits of microorganisms in the soil as the ability to bind aggregates together to form soil and the other is to decompose organic matter.

Since this book was written there has been a lot more research carried out on this topic and this is where we combine what we know about the Titanic with what we have gleaned from recent research to propose that bacteria are actually responsible for breaking down even the toughest rocks!

We also read a very early paper on the topic by Banfield et al¹ entitled “Biological impact on mineral dissolution: Application of the lichen model to understanding mineral weathering in the rhizosphere”, which was published in 1999.

This study concentrated on mineral weathering in the rhizosphere which is that thin area of the soil where roots thrive and take up minerals for the plants to grow and flourish. They also had some interesting comments relating to lichen on rocks which they found were teeming with bacterial life.

Lichens accelerate the degradation of minerals by physical and chemical methods and are ideal microcosms in which to study microbially mediated mineral weathering.

Getting closer

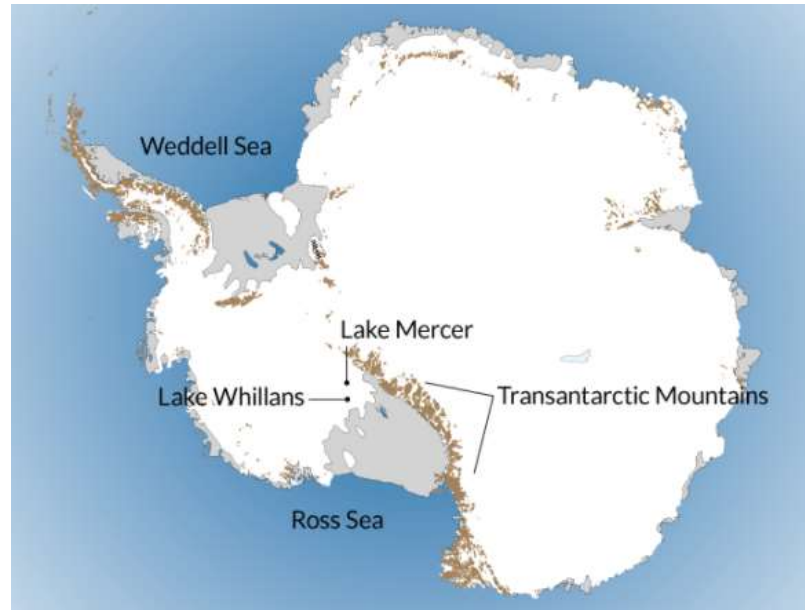
Next, we turned to the ever-reliable Nature publication and came across a paper that had been published in 2014 which took us a bit closer to what we were looking for and which bore some remarkable similarities to the Titanic in that the research was carried out on bacteria that live below one of the thick ice sheets found in Antarctica. The paper was written by a team from Aberystwyth University led by Brent Christner² and was entitled “A microbial ecosystem beneath the West Antarctic ice sheet”.

The purpose of the study was to gain an understanding of the complex interactive metabolic processes that sustain these microbial communities in such low temperatures found deep in the waters of Lake Whillans³ under a thick sheet of ice in the west of the continent.

¹ J. F. Banfield, W. W. Barker, S. A. Welch, A. Taunton, *Biological impact on mineral dissolution: Application of the lichen model to understanding mineral weathering in the rhizosphere. Proc. Natl. Acad. Sci. U.S.A.* 96, 3404–3411 (1999).

² Christner, B. C., Prisco, J. C., Achberger, A. M., Barbante, C., Carter, S. P., Christianson, K., Michaud, A. B., Mikucki, J. A., Mitchell, A., Skidmore, M. L., Vick-Majors, T. J., & Science Team, T. WISSARD. (2014). A microbial ecosystem beneath the West Antarctic ice sheet. *Nature*, 512(7514), 310-313. <https://doi.org/10.1038/nature13667>

³ Lake Whillans lies below nearly 800 metres of ice sheet!!



Location of Lake Whillans: Wikipedia

The abstract begins with a promising statement:

Liquid water has been known to occur beneath the Antarctic ice sheet for more than 40 years, but only recently have these subglacial aqueous environments been recognized as microbial ecosystems that may influence biogeochemical transformations on a global scale.

So how can tiny creatures such as bacteria influence the biology, geology and chemical systems all over the globe? If they can then it is entirely possible that they can perform the task which is our quest and that is eating rocks!

Their conclusion used quite a few hard words:

Our results confirm that aquatic environments beneath the Antarctic ice sheet support viable microbial ecosystems, corroborating previous reports suggesting that they contain globally relevant pools of carbon and microbes that can mobilize elements from the lithosphere and influence Southern Ocean geochemical and biological systems.

The key part of this scientific-speak is that they found that the bacteria (microbes) “can mobilize elements from the lithosphere”. Now “mobilize elements” means extract elements such as Phosphorus and Nitrogen and “from the lithosphere” is a fancy word for the Earth’s mantle or in other words, rocks!

This paper shows that bacteria can degrade rocks even in the most extreme of environments, but we wanted to find if there was any evidence of the involvement of bacteria in everyday environments producing soil that could be used for agriculture or viticulture.

Another experiment

We found what we were looking for indirectly through an article entitled “Scientists Waited Two and a Half Years to See whether Bacteria Can Eat Rock” in Scientific American by Jennifer Frazer in which she describes a fascinating experiment performed by scientists at the University of Wisconsin-Madison, the University of Bristol, and Pennsylvania State University.

This article summarises the work of this team who studied the effect of bacteria on an igneous rock called diorite which is formed deep in the Earth’s crust in a similar way to granite and with similar minerals present⁴.

They found an outcrop of this rock in a cutting. At the bottom of the cutting the rock had not been weathered or degraded in any way. Some way up the cutting, however it was degraded into pebbles and soil.

The researchers took two samples of the pristine rock at the bottom of the cutting. They then enclosed the two samples and in one they killed all the bacteria and sealed the rock. With the other they sealed the rock but did not kill the bacteria.

Then they waited and waited. In fact, as the title says, they waited for two and a half years before they examined the samples to see if the sample where they had left the bacteria had been degraded at all.

And, sure enough, the bacteria sample had been degraded with soil starting to form on the surface and the one without bacteria was still pristine. This is a very important study as it shows that bacteria are perfectly capable of turning solid rocks and minerals into soil, thus making essential elements available.

Conclusion

This has been a serendipitous look at how some soil is created ready for the planting of vines. In Part 2 of this article to be published in the June newsletter we will examine to optimal conditions for the soil and the vines to live in harmony and the conditions necessary to produce great grapes with great flavour!

⁴ Napieralski, Stephanie A., Heather L. Buss, Susan L. Brantley, Seungyeol Lee, Huifang Xu, and Eric E. Roden. "Microbial chemolithotrophy mediates oxidative weathering of granitic bedrock." *Proceedings of the National Academy of Sciences* 116, no. 52 (2019): 26394-26401

Grape variety: Gringet

We are currently preparing an article on grapes that have become known through the advent of natural wines. We will publish that article in Wine Talk once it is finished. There is one grape variety, however, that there can't be any argument about as the only commercial producer of wines from this grape variety only makes natural wines.

Two hours south of Arbois in the Jura, lies the well-known ski resort of Chamonix on the slopes of the famous Mont Blanc. It is in this area, the Savoie region, that amazing white wines and interesting red wines have been made since before Roman times. It is also an area of incredible beauty with mountain range thrusting vertically from fertile plains

We were lucky to stumble upon a tasting of eight biodynamic and organic Savoie producers on a trip to Paris many years ago and we immediately fell in love with these elegant wines. Of all the producers, one in particular stood out for the quality of their wines. These were the wines of Dominique and Patrick Belluard who were the guardians of most of the tiny area of remaining Gringet grapes left on the planet (they have 14 hectares of the 25 surviving hectares, see graph below).

This grape was virtually unknown outside the small region around the town of Bonneville until Dominique decided to sell his wines outside the Savoie and, luckily for us, to allow us to import them to Australia.

The Gringet grape is capable of producing amazing wines of elegance and complexity in the right hands. One of Dominique's wines that blew us away at the tasting was Le Feu made from Gringet grapes picked from a very, very steep vineyard with iron rich soil. There was just so much going on in the glass that it is difficult to describe. It was elegant, it was packed with flavour, it lingered for a long time and it was delicious.



Le Feu is the vineyard top left. The ploughed vineyard is a new one where more Gringet is being planted to take advantage of the iron rich soils.

There is also another white wine from Dominique called Les Alpes which is also made from Gringet and two sparkling wines called “Les Perles du Mont Blanc” and “Brut Zéro” which are fine examples of sparkling wines made from Gringet.

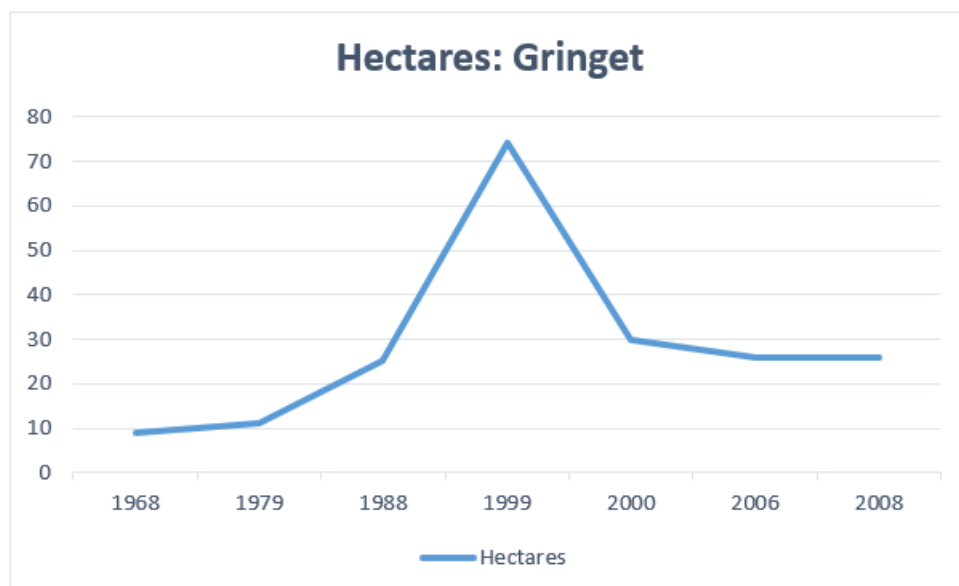
Paul Howard from the Circle of Wine Writers in the United Kingdom has this to say about the Le Feu:

Flavour-wise, there are gentle hints of peach and pear, with an underlay of quince, possibly picked up from the wine spending time on its lees. The wine has an unusual sarsaparilla note before a fleeting glimpse of honey rounds things off. There's good balance too, between the fruit, acidity and a relatively light 12% alcohol – that makes it easy to drink and good with food. This is subtle stuff that will have you refilling your glass in almost indecent haste.

Anyway, we approached Dominique and Patrick after the tasting and asked if we could import their wines to Australia and the first (very small) shipment arrived soon after. Patrick is no longer involved with the wine business and Dominique spends more time experimenting, trying to find how to get the best out of this precious grape.

The grape was thought to be related to the Jura grape called Savagnin or perhaps the more widely spread Traminer, however the Belluards point to the fact that recent DNA testing has shown that Gringet is not related to any other known grape and is therefore likely to be a native of the Savoie area.

The area planted to Gringet is very low. As can be seen from the graph below, the extent peaked in 1999 when there was some 72 hectares planted to Gringet, however it very soon was reduced to the 25 hectares that exist today.



WINE Talk – the newsletter of Living Wines

Of course, it may or may not get a little lift when Dominique finishes a new planting in the Le Feu vineyard, however there is something more insidious that has been occurring for the past 20 years.

The area around Bonneville is incredibly beautiful and many well-off people from nearby Geneva have been buying up land in the area and removing the vines to build weekenders.



Photo: Doris Schneider, Julius Kühn-Institut (JKI), Federal Research Centre for Cultivated Plants, Institute for Grapevine Breeding Geilweilerhof - 76833 Siebeldingen, GERMANY



Photo: Doris Schneider, Julius Kühn-Institut (JKI), Federal Research Centre for Cultivated Plants, Institute for Grapevine Breeding Geilweilerhof - 76833 Siebeldingen, GERMANY

The map below shows the location of the Vin de Savoie wine appellation and the location of Dominique Belluard's vineyards.



The Savoie region is one of incredible beauty with the Alpes rising majestically on the eastern side and the area between Geneva and Grenoble being one of the most breathtaking drives anywhere. It is here that sheer mountains rise from the fertile plains and vineyards abound on the lower slopes.

The Vin de Savoie wine appellation is a difficult one to master because every commune seems to be allowed to grow different grape varieties and to make different wine styles. The grapes are grown at high altitude (between 400 and 500 metres above sea level) in steep-sided valleys dominated by mountains such as Mont Blanc and Grandes Jorasses. These valleys have thick deposits of moraine left by retreating glaciers that once dominated the area.

All styles of wines are permitted here including still red, white and rosé wines as well as sparkling wines of varying types.

WINE Talk – the newsletter of Living Wines

The grape varieties are numerous with the most common red grapes being Gamay, Pinot Noir, Mondeuse and the relatively rare Persan. White wines are made from Chardonnay, Roussanne, Altesse (also known as Roussette de Savoie), Jacquère and Gringet.

The whites tend to be very pure, slightly acidic and quite elegant whereas the reds tend to the lighter style with lower alcohol that go very well with food. Red wines made from Mondeuse or Persan are particularly interesting.

WARNING

Under the Liquor Licensing Act 1990 it is an offence:

for liquor to be delivered to a person under the age of 18 years.

Penalty: Fine not exceeding 20 penalty units

for a person under the age of 18 years to purchase liquor.

Penalty: Fine not exceeding 10 penalty units

Because of the above penalties we are now required by the Tasmanian Government to collect your date of birth from you when ordering via the Internet. We apologise for this imposition. In the past we have been able to accept a declaration that you are over 18.