



Chum Creek
Landcare

CHUM CREEK LANDCARE NEWSLETTER

No. 13, Summer, 2017-2018



Droughts and flooding rains affect Chum Creek, as illustrated by these 2 photos taken in almost identical locations on your editor's property on the Sunday after Black Saturday in 2009 (left) and on Saturday, 4 December, 2017 (right)



President's Report

Only a month ago I watched water levels in Chum Creek dropping and began to be concerned about the impact of very low water level on the platypus. That was not a problem on the first weekend in December. Mt. St. Leonard received the highest rainfall in the state with 218 mm. over three days. Residents along Chum Creek report the creek roaring and overflowing bridges and its banks. While there haven't been many reports of flooding and damage there will be longer term impacts of this event. Unfortunately floods are a way that many weed species such as Montbretia, Arum Lily and Wandering Trad are spread. If one wants to contain the problem it is best practice to remove infestations while they are small and manageable. Chum Creek Landcare members do have access to a spray rig and smaller spray packs if needed. Contact us at chumcklandcare@gmail.com or 5962 5227.

However seeing the creek in flood conditions does give property owners an idea of which areas are vulnerable and where not to leave equipment or build structures. Maintaining and restoring riparian vegetation is very important in slowing flood waters down.

On 26 November some Chum Creek Landcare members were able to learn more about the Mountain Ash forests in the Toolangi area. We visited the excellent Leadbeater's Possum exhibit in the Forest Discovery Centre and we can recommend seeing this exhibit and having a meal at the café. Steve Meacher of the Friends of Leadbeater's Possum led an outstanding field trip to the Wirrawilla Rainforest area and to a far too extensive old logging coupe. Steve's presentations are always a terrific learning experience! The Friends of Leadbeater's Possum have courageously initiated a court case to halt logging in other coupes because proper environmental reviews and assessments have not been completed. For the sake of these forests we hope they are successful with their court case.

Best wishes for a safe summer and for 2018. When the flood waters settle, hopefully we will see the platypus enjoying their Chum Creek homes again.

Chum Creek Landcare news

Third Chum Creek Survey report will be available soon

The report from last summer's survey of Chum Creek and its adjacent vegetation, from where it crosses Lowes Rd. down to near where it meets the Watts River, is currently being prepared. It will be available later this year.

Chum Creek Landcare Group may produce a brochure to assist bird identification in our area and wants your input!

We would like to produce a colour brochure with photos and brief descriptions of birds known to occur in our area. This would be distributed free to Chum Creek Landcare members. This should assist bird identification and increase interest in local birds. We have applied for funding to produce the brochure and have been offered assistance by Birdlife Yarra Valley. We would like to know what birds do you think should be featured. Please let us know by email (chumcklandcare@gmail.com) or by normal mail (c/o 490 Chum Creek Rd., Chum Creek, Vic. 3777).

Featured Weeds – Spanish Heath and Tutsan

Spanish Heath (*Erica lusitanica*)

Spanish Heath is an evergreen, slender, erect, long-lived woody shrub growing to a height of 1.5 to 2 metres and occasionally reaching 3.5 metres. Spanish heath stems are woody and brittle, and the leaves are tiny (3 to 7 mm long), pointed, and clustered densely on the stem. The leaves have a longitudinal groove on the lower surface. Spanish heath flowers appear from late autumn to early spring. The white or pinkish flowers are 4 to 5 mm long and occur in loose groups towards the end of the stems. Each flower can produce hundreds of tiny, dust-like seeds which are released when flowering finishes and the flowers have browned off. Dead flowers persist on the plant before seeding in spring to early summer. The roots are fibrous, and the plant readily breaks off near the base, often regrowing quickly from the broken stump. It is often mistaken for the native Common Heath (*Epacris impressa*).



Spanish heath reproduces by seed and stem layering. Layering occurs where stems contact moist soil and send down roots. Spanish heath is also capable of shooting from broken stems and roots. Seed is dispersed by wind and water, by slashing, and in soil and mud. This weed invades areas of mid and ground storey, smothering and displacing indigenous groundcovers, herbs, grasses and orchids. It is very flammable.

Preventing the introduction of Spanish heath to Spanish heath-free areas is the best means of control.

- Good machinery and equipment hygiene-practices are vital.
- Spanish heath seed is usually carried into

new areas in soil and mud attached to machinery or boots. Spanish heath seed is too heavy to be dispersed by wind, and birds are not important in spreading seed.

- Spanish heath seed can also be carried in water. Removing Spanish heath bushes on the edges of water courses is important in preventing dispersal of seed downstream.

How to remove it

Remove by Hand: Small plants can be hand pulled and larger plants can be dug out with a mattock or garden fork, taking care to remove as much of the root system as possible. Plants break off easily and remaining roots will reshoot. The material should be disposed of safely, either by burning where appropriate, or piling plants where they cannot layer. This should be done prior to spring, before the plant seeds.

Weed matting can kill Spanish heath and can achieve a 100% kill after 45 weeks.

Cut & Paint: Larger plants can be cut off at the base and then the stump painted immediately with an undiluted glyphosate-based product.

Spray with Herbicide: For large infestations where native vegetation is sparse, brush cut the Spanish heath and spot spray regrowth with a glyphosate-based product. This is best done in early autumn before flowering.

Fire: Spanish heath is well adapted to fire and is not killed by burning. Burning is likely to make an infestation worse. Burning is useful for removing large stands of Spanish heath and making follow-up spraying more effective. Fire destroys large amounts of seed and stimulates much of the remaining seed to germinate, so that the seedlings can be sprayed the following year, greatly reducing the seed in the soil. Spanish heath burns readily and Spanish heath fires may cause severe damage to adjacent bush. Extreme care should be taken when burning Spanish heath near native vegetation, fences or buildings.

More information is available at -

https://www.yarraranges.vic.gov.au/files/assets/public/webdocuments/environment-engineering/parks-environment/environment-parks-environment/red_cestrum_web.pdf



Tutsan (*Hypericum androsaemum*)

A declared noxious weed in Victoria. It is a semi-evergreen shrub to 1.5 m tall. Stems are reddish and soft wooded, sometimes arching. Leaves are stalkless, green on the upper surface, paler greyish-green below some turning red during autumn. When crushed, leaves have a slight curry-like aroma. Yellow flowers form in



clusters on branch tips during summer. Fruit contains many oval shaped brown seeds. Tutsan has a fleshy, berry-like fruit that turns red in autumn. Tutsan seeds are produced in large numbers and are spread by birds, foxes, water and through soil and vehicles.

It often occurs on damp, shaded sites and forest edges from where it encroaches onto adjoining pastures

Tutsan is related to St John's Wort which contains the toxin hypericin which causes photosensitisation in sheep, cattle, horses and goats.

Tutsan occurs on forest edges and is rated a very serious threat to native vegetation in damp and wet sclerophyll forest, riparian vegetation, warm temperate rainforest and cool temperate rainforest. It forms dense thickets that smother and shade out native vegetation, including those forming the ground layer and smaller shrubs and prevents the regeneration of native plant species.

How to remove it – the same methods as for Spanish heath

Remove by Hand: Seedlings can be hand pulled if all the roots can be removed.

Cut & Paint: More established plants will need to be cut and painted using herbicide. As the plant can layer, particularly in swampy areas, scrape and paint may be required; however, this needs to be applied with great care to avoid spreading the herbicide.

Spray with Herbicide: Dense seedling beds can be sprayed with herbicide, depending on the presence of native groundcovers, shrubs or grasses. Clear weed material from around native plants before spraying. Avoid using herbicide in winter when Tutsan is semi-dormant. **Do not** spray plants in creeklines and swamps.

Berries are spread by birds, so treat the plants before they fruit. Dispose of the berries or capsules. Cut parts of the plant can be spread out to dry off the ground.

More information is available at –

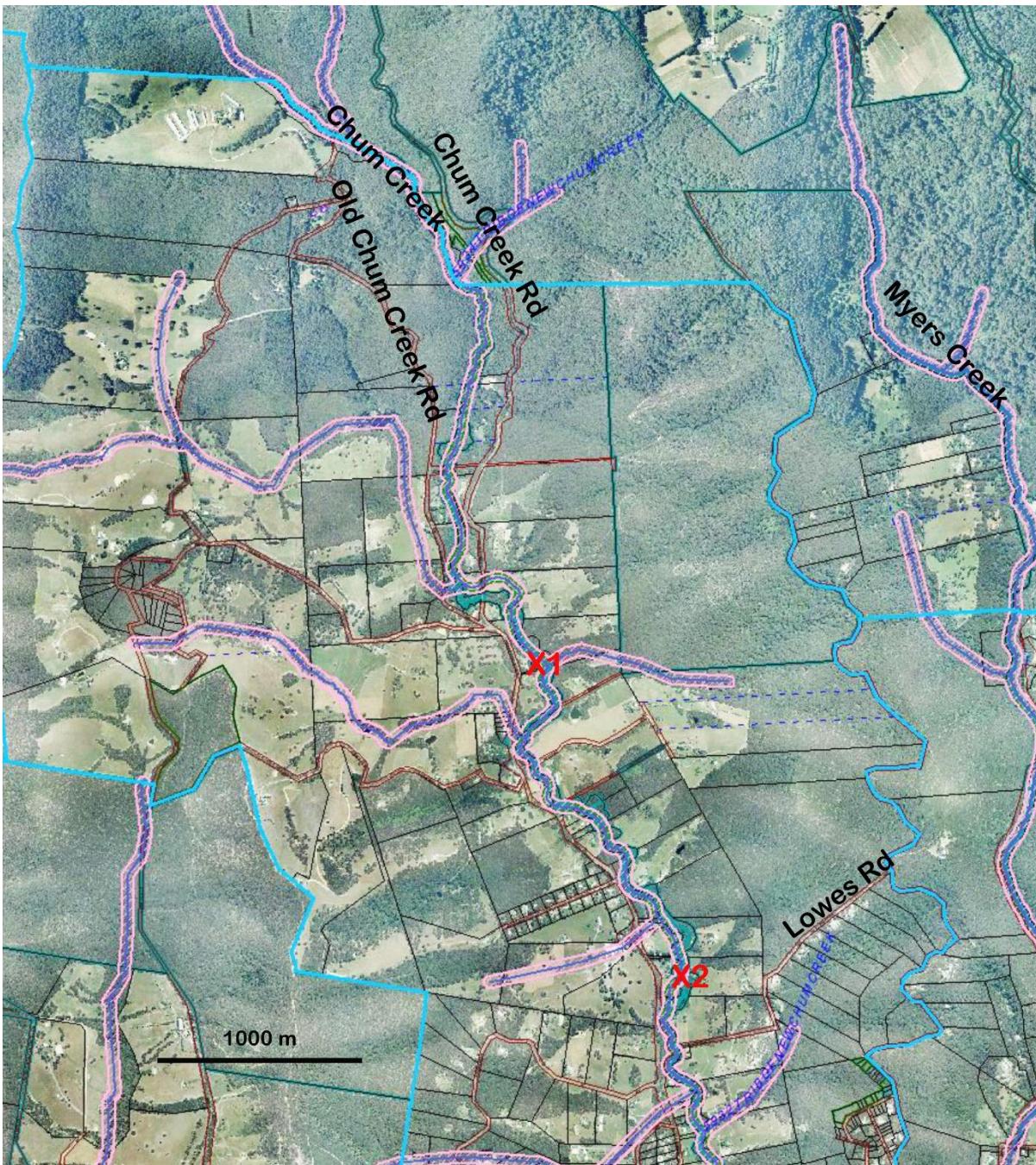
<http://weedsbluemountains.org.au/weeds/tutsan/>

http://vro.agriculture.vic.gov.au/dpi/vro/vrosite.nsf/pages/weeds_shrubs_Tutsan



Quality of Chum Creek water

Chum Creek Landcare received a grant from Melbourne Water to purchase some simple instruments to measure the physical, chemical, and biological quality of Chum Creek. Two sampling sites were selected, based on those who volunteered to participate (we thank Beth Bagley for assistance) – one just downstream of the junction of Heath, Old Chum Creek, and Chum Creek roads where Chum Creek flows through 762 Chum Creek Rd. (X1 in the map on P. 5), and the other just upstream of the Yumbunga dam where Chum Creek flows through 420 Chum Creek Rd (X2 in the map). The distance between the 2 sampling locations is approximately 1.8 km. Both sites are in the middle section (mixed forest and agriculture) of Chum Creek.



Sampling was conducted at both locations at approximately the same time (30 – 60 minutes earlier at the upstream site – X1) slightly more than once a month for the 2016 year (13 samples from each sampling site for the year). Water quality parameters measured were –

Physical – temperature, turbidity (amount of sediment)

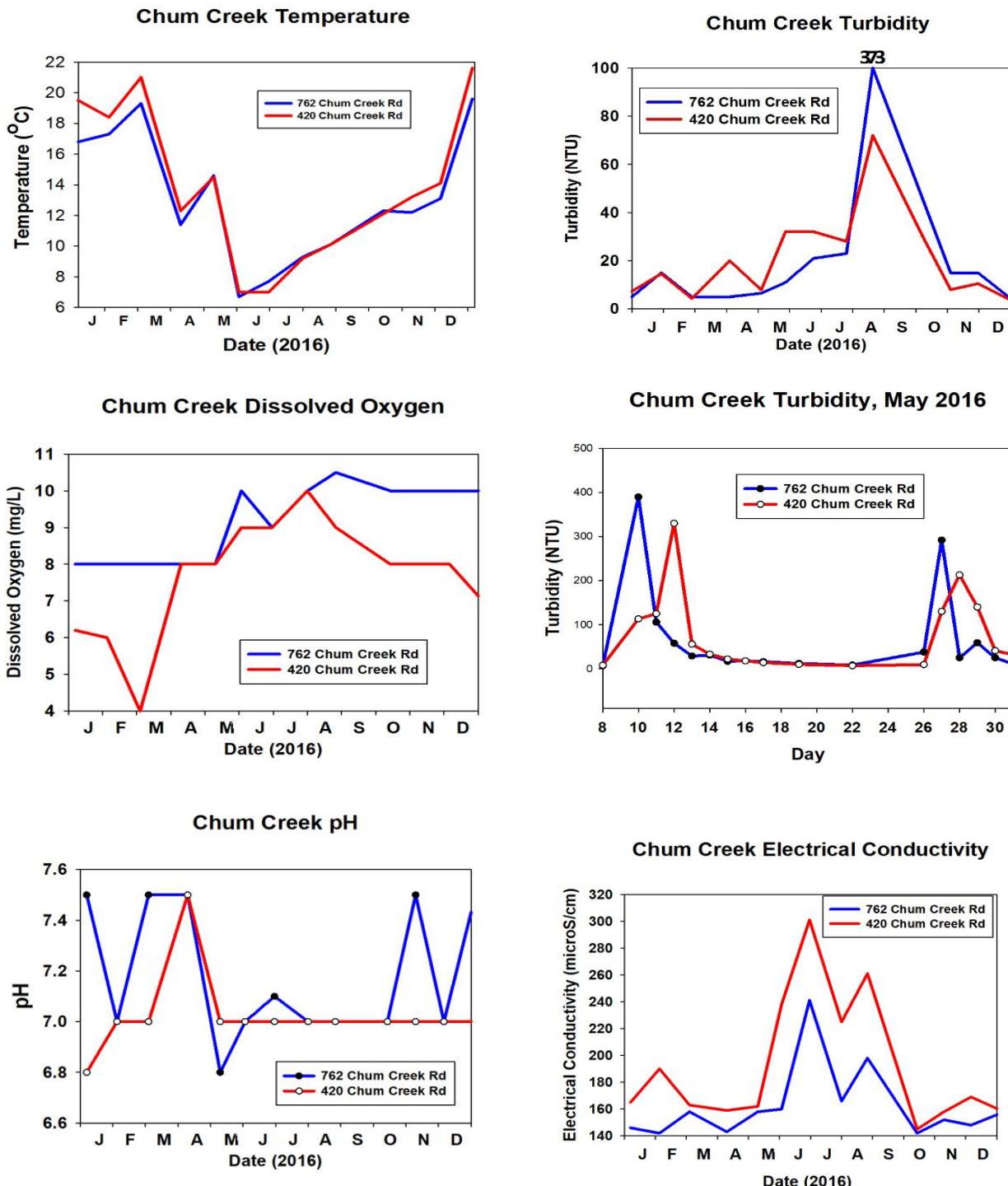
Chemical – pH (acidity), electrical conductivity (quantity of dissolved chemicals), dissolved oxygen

Biological – Total coliforms

The results suggest that Chum Creek water quality is questionable at times. Rainfall causes relatively high sediment loads (see Figures on P. 6) which may not always be detected by infrequent (e.g. once per month, perhaps during May 15-26, 2016) sampling. Biological contamination is likely throughout the year (coliforms were detected in one or both samples every month except April), and dissolved oxygen levels became relatively low at the downstream site in March, threatening aquatic life. The water did not meet drinking water

standards for turbidity at any sampling (should not exceed 0.5 NTU at any time, but every measurement exceeded this), although it met pH standards. It is still unclear how water quality varies along the creek and the degree to which biological contamination occurs. The presence of total coliforms is suggestive, but not conclusive. Perhaps we might do a more rigorous sampling in the future.

A more detailed report will be on our website in the near future.



Trends in water quality parameters measured during 2016 and during one month (May) in 2016 for turbidity. The lowest turbidity measured was 4.3 NTU (vs 0.5 NTU as the drinking water quality maximum).

The quality of Chum Creek water can be improved and there are a few simple things we can do. These were illustrated in our Autumn, 2016, newsletter and some are summarized here –

1. Maintain a good plant cover, preferably indigenous, around the edges of the creek (the riparian area). Revegetate by planting seedlings if necessary
 2. Keep livestock away from the riparian area. Fence if necessary.
 3. Avoid exposing mineral soil in the riparian area. Revegetate existing exposures.
 4. Keep manure piles away from the creek.
 5. Avoid using machinery in the riparian area.
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Events of interest

Stagwatching with ANU. December, 2017 - March, 2018

You can assist Australian National University researchers studying Leadbeaters and other possums in our ash forests, by participating in stagwatching on one or more evenings of your choice. On the first stagwatching evening this summer, a Chum Creek Landcare member actually spotted a Leadbeater's possum!



To come on a stagwatch, you will need to register with Wild Mob (link below). Camilla at Wild Mob will post available dates, then as expressions of interest come in, she will allocate you to the available nights and send the list to us. If you have not registered, you will not get the notifications of when stagwatches are on.

Register at: <https://wildmob.org/stagwatch-program-registration-of-interest/>

Past stagwatching over 33 years has produced a wealth of scientific information which has helped the ANU researchers write a (unfortunately fairly critical) report to government about how Leadbeater's Possums are going and how effective current management of the species is.

The report can be found at: <http://fennerschool.anu.edu.au/news-events/leadbeaters-possum-review-august-2017>

Manningham Environment Seminars (Warrandyte) – The impacts of introduced grazing on plant communities, by Dr Arn Tolosa from Victoria's Arthur Rylah Institute for Environmental Research.

Wednesday, 7 February, 7.30 - 9 pm.

Until European settlement, Australia's high country had not seen large, hard-hoofed grazing animals. In fact, it had little exposure to large animals of any kind. So what happens when we introduce livestock and feral grazing animals to plant communities that have not evolved with them? Is there any benefit to the high country or is the news all bad? Does grazing reduce blazing? And what on Earth does any of this have to do with areas near Melbourne?

Seminars are conducted at River View Room, Grand Hotel, 110 Yarra St., Warrandyte.
For information: phone 03 9840 9326 or email csadmin@manningham.vic.gov.au