

# Kimberley Rangelands Biosecurity Association Invasive Species Activity Report 2020/21

## Large Feral Herbivores

*Overview:* The Kimberley Rangelands Biosecurity Association (KRBA) has an annual Large Feral Herbivore culling program that includes feral donkeys (Judas Program), horses and camels with other animals such as water buffalo and pigs targeted when located. The program focusses primarily on donkeys, using the radio telemetry technique with horses and camels culled opportunistically during tracking. Currently there are approximately 45 active collars throughout the Kimberley region including three satellite collars utilised for research purposes.

Occasionally and as required dedicated management culls are enacted for feral horses and camels. An example of this is an annual cull of feral horses in the East Kimberley focusing on the Great Northern Highway and adjacent pastoral leases. The cull's primary role is to reduce the risk of traffic accidents and the subsequent potential injury to road users.

*Achievements as per operational plan:* There were three runs carried out throughout the year over 12 days, two focussing primarily of donkeys in the North and West Kimberley and there was a further East-Kimberley run that focussed on horses but did include donkeys. Results of animals culled on those runs are as follows –

Donkeys	Horses	Camels	Pigs
185	440	71	32

A point of interest on the May 2021 run was the use of the new 'Type U' darts for the capturing of Judas animals. The type U replaces the wire barb with a gel barb reducing the trauma and infection experienced by the animal.

In addition to the culls eight new collars were deployed on donkeys over the year and 15 DNA samples were taken.

It is recognised by the KRBA that land managers also contribute to controlling feral herbivores with both opportunistic and planned culling programs of their own however no figures of those programs are available.

No aerial shooting operations were carried out over Department of Parks and Wildlife managed land by the KRBA. However Department of Parks and Wildlife did undertake its own management shoot over the Drysdale National Park, the Ord River Regeneration area and other reserves. Their data is provided to the KRBA biannually.

*Analysis:* A cost benefit analysis was undertaken of the Judas Program in 2019 to assist in determining the direction of the program over the next 30 years. It was found that the program to date had generated a Benefit Cost Ratio (BCR) of 3.8 for every dollar spent on the

program. It should be noted that the ratio was for the Judas Program, any management cull that controlled comparatively large numbers of animals in a relatively short period of time would generate a much better BCR. None the less it could be reasonably expected that using the known figure that the approximate \$150,000 spent in this financial year provides close to \$558,000 of benefit to the pastoral industry and an unknown dollar value with regard to environmental benefits.

*Performance indicator: – Reduction in feral donkey population – Number of properties locally eradicated – Reduction in feral camel damage:* No data is available to verify the reduction of the donkey program on a year by year basis however it has been estimated that when the program began in 1978 there were an estimated 250,000 donkey in the Kimberley region, THE current population is estimated at between 3,000 and 5,000 animals. Local eradication on properties is ongoing. Reduction in camel damage was not measured.

*Recommendations:* Maintain donkey program as per 2020-21 operational plan, increase funding to wild horse control.

## **Wild Dogs**

*Overview:* The KRBA runs two aerial baiting programs a year to support the individual ground baiting programs run by pastoral stations. They are usually programed for April and September to avoid rains that will render the baits useless. The programs are coordinated by a contractor. In addition to the baiting service the contractor also provides according to the demand bait injection course for pastoralists as part of the baiting service provided by the KRBA.

*Achievements as per operational plan:* The September 2020 program covered 35 leases resulting in the following bait quantities dropped or supplied to pastoralists –

- 54,550 baits were injected by the contractor.
- 1,500 pre-made field prepared dried meat baits were supplied to stations by the contractor.
- 11 Litres of 1080 CLC were supplied to pastoralists to inject their own baits

The May 2021 program covered 32 leases resulting in the following bait quantities dropped or supplied to pastoralists –

- 67,680 field prepared baits and injected by the contractor (The highest number by that contractor to date for the KRBA).
- 2,000 dried meat baits supplied by the contractor.
- 5 litres of 1080 CLC supplied to pastoralists to inject their own baits.

*Analysis:* A cost benefit analysis was undertaken for the DPIRD'S WA Wild Dog Action Plan 2016 – 21. It estimated that dog control in the Kimberley had a BCR of 5.1. On that basis the \$261,000 of funds spent of wild dog control in the 2020-21 year gave a benefit to industry of \$1,305,000.

*Performance indicator: – Calf survival rates:* No data is available to verify what calf survival rates are at a regional level due to the program however landholders interviewed in the 2019 survey gave the program a score of 9.2 out of 10.

*Recommendations:* Maintain wild dog program as per 2020-21 operational plan.

## **Pigs**

No work was undertaken on pigs this year however it was agreed that the KRBA would support the North Kimberley LCDC'S funding application for a pig trapping project.

*Recommendations:* Initiate a pilot control program in two locations within the Kimberley region.

## **Prickly Acacia**

*Overview:* Prickly acacia is known to exist in two locations in Western Australia, both in the East Kimberley region. The KRBA runs control programs on one of these sites and monitors the second. The Nulla Nulla site covers 10,578 hectares and work has been ongoing on that site from approximately 2005. The KRBA has supported this work in terms of funding since the onset and took control of the operational aspects of the program in 2017.

The Gordon Downs site was first identified by a DPIRD Biosecurity Officer in 2012 when a small number of juvenile plants were found. A number of monitoring runs have been undertaken since that time with no further plants found.

*Achievements as per operational plan:* Three control programs were carried out on the 10,578 hectare Nulla Nulla site over the 2019/20 wet season. In total 394 plants were controlled, a threefold increase of plants found on the previous year's control program. No survey work was carried out on the Gordon Downs site.

*Analysis:* No benefit cost analysis has been carried out on impact of the work in this site however the economic impacts of Prickly Acacia on QLD's grazing industry was at estimated at \$5 million per year (2003). Even at medium densities, it halves productivity of grasslands, interferes with mustering and restricts access to water.

*Performance indicator – Eradication of prickly acacia:* Ongoing.

*Recommendations:* Maintain eradication program as per 2020-21 operational plan.

## **Mesquite**

*Overview:* Mesquite is known to exist in three locations in the Kimberley region of Western Australia. The KRBA ran a control program over the Nicholson site until 2020 when it was handed over the lease owner Heytesbury Cattle Company after eight years of work had reduced the infestation down to a manageable size. At that time the KRBA took on the operational work from DPIRD of the Yeeda and Thangoo infestations as well as previously providing financial support to the programs.

*Achievements as per operational plan:* Two control programs were undertaken in 2020-21 on the Yeeda site with 59 plants controlled. One control program was undertaken on the Thangoo site with 39 plants controlled.

*Analysis:* No benefit cost analysis has been carried out on impact of the work in this site on no information can be found on the economic benefits pertinent to the site and region however it is well known that the Pilbara mesquite infestation covers in excess of 55,000ha and creates a significant cost to production and control annually.

*Performance indicator – Eradication of mesquite:* Ongoing.

*Recommendations:* Maintain eradication program as per 2020-21 operational plan.

### **Rubber vine (*Cryptostegia grandiflora*)**

*Background:* Rubber vine control in the Kimberley has been supported by the KRBA since 2009 there are two distinct programs, one in the east and the other in the west Kimberley managed by partnership groups made by of the following organisations –

- KRBA
- DPIRD
- DBCA

Both programs run independently of the other with separate steering groups overseeing the planning and work carried out. Work is largely undertaken by contractors but partner organisations also provide in-kind as well as financial support

The KRBA provides both funding and in-kind support to both programs. In 2020 the KRBA agreed to take on the role of sponsor organisation for the group's SNRM funding applications and to provide financial management of the programs. Other partner organisations also provide funding and in-kind contributions such as personnel to carry out the control and survey work.

*Achievements as per operational plan: - East Kimberley:* Rubber vine has been located at three locations in the East Kimberley – Oombulgurri, the Ord and Bow Rivers upstream of Lake Argyle and Limestone Creek adjacent to the Ord/Bow locations. A number of field trips were carried out over the 2021 dry season covering 352 hectares and totalling 116 people days on those locations, there was a significant decrease of coverage on the previous year's program due to some of the older areas being declared weed free.

A total of 2,949 plants were treated down significantly from 13,684 plants recorded in 2020. An aerial survey program was undertaken in March 2021 covering approximately 51,500 hectares and locating 55 seeders.

*Achievements as per operational plan: - West Kimberley:* The Aquila annual helicopter survey resumed this year due to climatic conditions improving on last year season that inhibited flower production required to allow the plants to be located from the air. In total 16,550 hectares were surveyed with 84 seeders located. A total of 15,234 plants were controlled up significantly from 961 plants recorded in 2020. Plants Controlled included –

- Breeders - 152
- Adults – 1,638
- Juveniles – 5,095
- Seedlings – 8,349

*Analysis:* A 2014 DAFWA benefit-cost analysis, estimated that eradication of current infestations in the Kimberley would prevent damages of \$10.9 million/year over a 30-year period based on agricultural impacts alone. This analysis did not include environmental benefits to the region in the shape of Ramsar sites, national parks and nature reserves. It is on this basis that the three organisations have agreed to undertake the program in partnership.

*Performance indicator – Eradication of rubber vine:* Ongoing.

*Recommendations:* Maintain eradication program as per 2020-21 operational plan.

## **Gamba grass**

*Overview:* Eradication of the gamba grass infestation on El Questro Station has been supported by the KRBA since 2013 and is managed by a partnership group made by of the following organisations –

- KRBA
- DPIRD
- DBCA

Work is largely undertaken by contractors but partner organisations also provide personnel on the ground as well as financial support

The KRBA provides both funding and in-kind support to the program. In 2020 the KRBA agreed to take on the role of sponsor organisation for the group's SNRM funding applications and to provide financial management of the program. Other partner organisations also provide funding and in-kind contributions such as personnel to carry out the control and survey work.

*Achievements as per operational plan:* Only 23 plants were controlled in 2020-21 indicating this program is close to a successful conclusion.

*Analysis:* No benefit cost analysis has been carried out on impact of the work in this site however a quote from the executive summary of the report – Economic Impacts of Gamba Grass in the Northern Territory states – *Insufficient resourcing of gamba grass control efforts costs the Northern Territory tens of millions of dollars annually, most significantly in fire management and weed control, but also in lost opportunities from the growing carbon sector. These costs will continue to increase if gamba grass expands further across the Territory.*

*Performance indicator – Eradication of gamba grass:* Ongoing.

*Recommendations:* Provide no funding in 2021-22 to the gamba grass steering group to carry out the eradication program as there is sufficient carry forward of funds from previous years.

## **Subsidies**

*Overview:* A 100% chemical subsidy was introduced for control of parkinsonia in May 2000. In 2004-05 the budget allocation for chemical was \$12,000; that amount has increased to \$100,000 for the 2020-21 budget with amounts of up to \$10,000 available for individual leases. An ammo subsidy was established from 1<sup>st</sup> November 2019. Members are entitled to claim up to \$1,000 each year per entity.

*Achievements as per operational plan:* \$53,000 was allocated to five leases for weed subsidies and just over \$2,000 to three entities for ammunition subsidies in 2020-21.

*Analysis:* Parkinsonia control has been ongoing under this subsidy program on leases that Sturt Creek flows through for a number of years. This has reduced the impact of the weed on those leases as well as the seed burden flowing downstream into other leases and Lake Gregory and important wetlands site. In addition neem control on Spring Creek Station over a number of years has reduced that weed's impact on pastoral land on that lease.

*Recommendations:* Maintain funding to subsidy program based on 2020-21 operational plan budget.

### **Risk Management**

A number of initiatives were undertaken in the 2020/21 financial year to reduce risks associated with the organisation's programs and membership activities, they were –

- Insurances maintained for 2020-21
- Insurance and licensing details for 2020-21 obtained from contractors.
- Heli-Muster and APMS COVID Management Plan and SOPs enacted.

### **Member engagement**

The following engagement strategies were implemented in the 2020/21 financial year –

- Quarterly newsletters were sent to members and stakeholders.
- Only one stakeholder meeting was attended due to COVID-19 restrictions.
- Website was updated.

**KRBA Financial statement 2020-21**

Expense	Admin	Donkeys	Other Species	Subsidies	Rubber vine	gamba grass	Mesquite	Nilotica	Other weeds	Wild Dogs	Total
Accommodation	6023.67	0	57	0	0	0	0	0	0	0	6080.67
Accountancy fees	4920	0	0	0	0	0	0	0	0	0	4920
Aerial contracting	0	59522.38	64754.77	0	0	0	4400	8656.36	0	145671.7	283005.3
Ammo Subsidy	0	0	0	2141.37	0	0	0	0	0	0	2141.37
Bank fees	248.79	0	0	0	0	0	0	0	0	0	248.79
Chemical	0	0	0	53106.93	0	0	0	153	1330.68	0	54590.61
Consumables	0	1165	335.45	0	0	0	0	0	0	0	1500.45
Contractors	0	10650	-8795.45	0	0	0	0	0	0	113737.3	115591.8
Equipment	3219.28	1455	0	0	0	0	0	0	370.87	0	5045.15
Freight	0	1500	0	0	0	0	0	0	0	0	1500
Fuel and oil	0	13791.6	2500	0	0	0	549	0	0	388	17228.6
Insurance	16527.27	0	0	0	0	0	0	0	0	0	16527.27
Meeting costs	788.4	0	0	0	0	0	0	0	0	0	788.4
Postage	260	0	0	0	0	0	0	0	0	0	260
Programs	0	0	0	0	90000	30000	0	0	0	0	120000
Salaries/super	103876.1	0	0	0	0	0	0	0	0	0	103876.1
Repairs	455.45	0	0	0	0	0	0	0	0	0	455.45
Signage	0	0	0	0	0	0	0	0	0	1680	1680
Stationary	1337.85	0	0	0	0	0	0	0	0	0	1337.85
Telephone	1232.61	0	0	0	0	0	0	0	0	0	1232.61
Travel	13323.26	0	0	0	0	0	0	0	0	0	13323.26
Vehicle	14401.56	0	0	0	0	0	0	0	0	0	14401.56
<b>Total Expense</b>	<b>166614.3</b>	<b>88083.98</b>	<b>58851.77</b>	<b>55248.3</b>	<b>90000</b>	<b>30000</b>	<b>4949</b>	<b>8809.36</b>	<b>1701.55</b>	<b>261477</b>	<b>765735.3</b>