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The Australian Rangeland Society

WHAT IS BIO-DIVERSITY? FROM THE PATORALIST VIEWPOINT

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INTRODUCTION

Challa Station is in the Shire of Mt. Magnet in the Murchison region. This is a working business and as such our first priority is to make a living from the land. The Dowden family has leased Challa Station from the Government of W.A. since 1888. At present there is John and Fran, and John's son Ashley, his wife Debbie and their three children living on the property. These children are the sixth generation of Dowdens on Challa.

Bio-diversity is not a word any of us would have used prior to the EMU team making contact with us and it is probably not an everyday term we will use because of diversity having a close association with diversification – which we do not wish to do. In fact I had to look up the meaning in the dictionary.

The Collins Concise English Dictionary tells us that Biodiversity is:

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|--------------|---|
| Bio- | indicating or involving life or living organisms; |
| Diversity 1. | The state of quality of being different or varied |
| 2. | A point of difference |

“Ecojunctions” was another term we needed explained. However we do know where the different types of land systems meet and that these are the areas of greatest grazing pressures. Does this mean that we do know what bio-diversity is or what ecojunctions are? Maybe the knowledge is the same as the gurus but the terminology is different.

Our highest priority is to care for the land, not to overstock, to watch the changes from long periods of drought and the effects of water erosion (as happened in the big floods of 1992 & 1995), and the wonderful regeneration from these rains. Revegetation in 1992 & 1995 far outweighed any water erosion damage, that did occur in certain areas of channel country.

CONSTANTLY READING THE LAND

The men, especially, are constantly monitoring the situation of decreasing or increasing vegetation. While working their land they watch and notice the changes. John, his father, grandfather and great grandfather spent hours riding horses through the land, moving mobs of sheep. These were golden opportunities to notice each and every bush along the way. Horses don't run through or over saltbushes, but pick their way through the country. The riders noticed changes; plants, animals and insects are observed. It is noticed which plants are eaten, which ones are left, even in the worst drought. How long it takes for a bush to regenerate is closely monitored, when the emus are laying their eggs, when the snakes and lizards are about and the echidna homes. This all comes with experience. This is their life, their love, their children's future, their stock survival, therefore the future income and ongoing survival of the property. If changes aren't noticed and measures taken to correct as and when needed, there will be no future for the rangelands.

From these observations and knowledge they know which way water flows, the strength of the flow, the gradients of the land, and what soil surfaces are absorbent and what soils need very steady rain to gain benefit. It has been a saying at Challa for a long time – “things happen because of rain – not because rain is coming”. Pundits will dispute this. How many of us notice the ants scurrying around and it rains very soon after - or maybe it doesn't? Like most insects they are subject to barometric pressure if the pressure is down there is insect activity and sometimes it even rains.

Ashley, John's son, is the new generation. He has ridden horses as a child and also spends hours observing the bush. Like most bush kids, he was generally sitting with the adults at the table when stories of the bush were told. He has also spent most of his adult life riding motor bikes as his mustering style. To add to this he also is a pilot and can see the land changes ever so clearly from a "birds eye" view. Where water runs – to and from, where there is degradation, where there is growth and where the land changes are. His children are now experiencing the same "bush education", when from an early age they go on mill runs and help in the bush - a very important part of our life and our future. Motor bikes are a necessary tool for mustering and will remain so, however the knowledge of the land has to be passed on.

To watch the animation on the faces of John's 94 year old father, John and Ashley discussing a change here or there, as they have a cuppa, is an awakening to their love of the land. Without this love and understanding being passed on, future generations will never understand. We believe this cannot be gained from a desk in some government office. The science is all well and good, but scientists do not observe the land for 365 days of the year.

STOCKING WELL WITHIN THE LAND'S CAPACITY

Stock numbers are always a bone of contention between governments and landowners. We have a breeding policy on Challa; that if there is not enough feed on the ground in December, that will still be there for the ewes to lamb down on in the following June/July – the rams are not put in. We don't gamble on a summer rain. If it should rain in the summer it is a bonus.

Our selling program is governed by the amount of winter rains (fodder) we receive. This decision is made early in August at the completion of shearing. If insufficient rains have fallen stock numbers are cut back (above the usual aged and cull numbers) to enable us to get through to the following winter. Once again if it rains in the summer it is a bonus the country recovers to enable us to carry on into the future.

Therefore we are not biodiversity specialists, but we believe we understand the country. Summer rains regenerate the perennials and supply fodder, winter rains apart from supplying fodder, continue the growth of the perennials, which will get the stock through the next summer. Winter rains are more reliable than summer rains in this area. If we are not overstocked and running our place to what might happen, but managing our stock to what has happened, we believe the rangelands will continue to provide us with a viable future.

There is a lot of reporting of nature reserves being left on farming areas. The pastoralist has a full property of nature reserve, if he is prepared to care for it. The biggest foreseeable problem is the 5% of irresponsible pastoralists who are allowed to overstock and degrade their land. This puts pressure on neighbours' properties, as large stock can constantly stray through fences for feed. The powers to be seem to take a very long time to assess the situation, decide on an action, and then having the "guts" to act on the action they have decided. People out in the field, neighbours reports, etc. point to where there is degradation of the land happening; the relevant bodies should take some action and back the field officers. If this is not taken up, as the financial position of some of these people worsens and they become numbers people instead of property people – more land will be lost. Maybe the EMU project with the monitoring sites will enable these landowners to see the errors of their ways.

RARE FLORA

In May 1999 we received a letter from CALM informing us that a "priority two" flora, *Baeckea* sp. London Bridge population had been identified on our pastoral lease. As far as we know it is one of only two known populations in the State, and occurs in an extensive area of breakaways on Challa. Feral goats tend to camp in the breakaways and in some areas this rare plant population has been grazed. Because an extra watering point has been developed in this area (prior to the knowledge of this plant) the grazing pressure will increase. CALM asked us to protect the population on our land and arrange our operation so that the flora was not disturbed.

We had made some enquiries after we received the letter to find out if funding was available to assist in the protection of the species. In consultation with the EMU project, we have applied for funding for fencing materials to set up a small enclosure to keep all animals out of the isolated breakaway, where CALM and EMU officers have identified mature and juvenile plants. As a control measure we have also applied for TGM yards at three watering points that service the breakaway area. This will allow us to constantly control goats to a minimal number in the breakaway area. We will do the construction and ongoing maintenance of the TGM yards and monitor the site in the enclosure area, and compare it against a monitoring site outside this area.

Until we learnt of the NHT funding, nothing else had been available. We decided that NHT funding might be our best chance of protecting the population.

The major threats to the plant population are the feral goats that graze across the breakaway country where these plants are found. To us, the solution is simple; fence off the concentrated macropopulation and protect the other plants scattered through the country from goats by building trapyards to reduce the feral goat population in the area.

This is what we have applied for funding for from NHT. One of the biggest problems with the NHT is the fence costing. A substantial fence is required to exclude feral goats. This must be ringlock. Electrifying is useless as animals will go through it once and all the goats will be inside the exclusion area. NHT will only fund up to \$1600 per km for the fencing. We only require 1.2 km of fence but the materials alone add up to almost \$5000 per km. It has been difficult to impress upon the NHT people the need for such a costly and substantial fence, but it is obvious to us that nothing less than what we have proposed would effectively exclude feral goats and protect the plant.

After we completed the application we spoke to a member of the NHT Regional Assessment Panel. He said that NHT does not give any money for trapyards. If this is the case, then it looks as though our application will be unsuccessful or at best only partially successful. So we will have this little rare plant on our breakaways that everyone says is worth protecting but we are struggling to get any funding to protect it.

We hope to show that sustainable pastoralism includes conservation, and that conservation does not only happen behind enclosure fencing or on reserves. That said, our environmental focus remains on maintaining the general health of the land and its vegetation; not on specific local biodiversity issues

We will be putting in a large amount of labour and time, to protect this plant for the future. It must, however be a joint project. To maintain and conserve the rangelands to be sustainable support must come from all parties. We are doing our best to run a business and to conserve the lands. Both State and Federal governments must be forthcoming in helping the pastoralist manage specific biodiversity values.

LAND CONSERVATION & REPAIR WORK

In consultation with the EMU "crew" we have embarked on a program to stop water erosion continuing in one of the watercourses. This watercourse had been slowly eroding away the soil and becoming a creek. It isn't very wide at this stage and we feel it would be a great experiment to try one of the EMU projects. The land is in a tributary flood plain on hardpan. The idea was to pack the edges of the eroding watercourse with brush to slow the pace of the water as it dropped off the 30cm banks like a waterfall effect, which caused the erosion. Luckily (?) our very large family was coming for an Easter break and they were all deputised to do the packing. Ken and Hugh have both been out to check on happenings and some rearrangement has been made in parts. Have we any results – nothing is known at this point because as per Murphy's law, it hasn't rained since the packing. We have established a monitoring site in this area.

MONITORING

The EMU project is one of the few government initiatives that are an aid to the pastoralist. We are able to transpose onto maps and into our monitoring sites our knowledge of the land. At this stage we don't have big brother looking over our shoulder making demands. If this should ever occur I believe you would find the pastoralist perhaps not recording 100% of the truth.

As it is, it's a guide and learning tool to (perhaps) the inexperienced pastoralist to assist him in the preservation of the rangelands. To the experienced pastoralist who knows what is going on, it is proving to the world that we are caring for the land and harvesting fodder in a commercially sustainable manner.

All properties, without exception, have made mistakes in the past through overgrazing. This had been done, mainly, through stocking rates set by the government in the past and the lack of understanding of the delicate balance in the rangeland's flora. A lot of areas that have been degraded in the past are slowly being brought back with careful management and stocking rates. This is where the EMU monitoring sites are of immense value.

We have put in 29 monitoring sites. One of these is on a fenceline where up to 5,000 sheep are droved annually for shearing and were then also droved back. These days we only walk them one way and transport them back by truck. We will be monitoring the changes. Another site is within half a kilometre of a new dam that is situated in country where stock were unable to utilise the feed, when on the other watering points. Only a fool would believe that the number of delicate palatable shrubs wouldn't decline at this site, but a proper perspective has to be looked at, in being able to maintain the majority of the perennials so close to a watering point. Another site is situated on the edge of a land change system and next to a watering point, which has been severely degraded vegetation wise and with water and wind erosion. This area will never come back, even if de-stocked. There are a number of woody plants now growing. It is interesting to monitor beneath these trees where birds have delivered the seeds of fodder plants and they are gradually becoming established.

The education of the landowner to the scientific jargon should not be a threat. I doubt that it is. We are mostly an intelligent lot, who can verbalise with the best of them. We probably don't know the botanic names of plants, but we know what they are for. Furthering any person's education and knowledge is for the betterment of the industry. However be aware that you can't do this from behind a desk and expect to see results from landowners who are out there every day. In other words don't get too scientific; a balance must be kept between the scientists, the landowners and Government.

One of the concerns of the pastoralists is that the monitoring system will become too unwieldy. When we started the monitoring sites, we used a one-page sheet, a photo and a list of plants. The Mark ? Monitoring Site Sheets are 4 pages and all very well for the scientific monitoring. We must ask, are all the questions necessary for the pastoralist to achieve objectives of the monitoring the site?

For example to do 29 sites, we have so far spent 4 days x 2 people putting them in, 2 days x 3 people doing the initial monitoring plus photo development, writing up forms, etc. We are still to do our follow up monitoring photos. It is an adjunct to the pastoral activities and time is very important to us all. If the job becomes too onerous it won't be done – or will only be done intermittently. It is exciting to write up forms and have all the information required, but, it has to be something that is simple enough for the pastoralist to include into his daily activities, e.g. while out doing a mill run, etc.

Is a photo every year necessary? Is it necessary to have an aerial photo for each site? What is necessary? It must be kept in mind that this is not the only activity happening on the property and needs to be kept into perspective of the property development.

We, at Challa, have been part of the SQF accreditation trial project for Gascoyne Murchison Strategy. As part of our accreditation manual, we have added an environmental management unit. This has

included the EMU monitoring sites as part of the manual.

We would like to finish by commending Dr. Ken Tinley and Dr. Hugh Pringle for their effort to get the EMU project up and running. Challa is a member of the Rangeland Fibre & Produce Association. We were one of the first groups they worked with and we found the “EMU’s” enthusiasm exciting. Hugh and Ken are willing to listen to the pastoralist, take on board comments and discussion but still able to effectively put their ideas forward. I believe our entire group is seeing the country in some different view than before meeting them. We have a variety of ages within the Rangelands Fibre & Produce Group, and all ages and gender have been prepared to take this activity on board. We would be disappointed if Emu is not continued and would hope it will eventually be enlarged to encompass the whole rangeland.

We believe there are many people benefiting from the land whether it be the pastoralist, the wool merchants, the people eating our produce or even advisers to the Government bodies like CALM, etc. We all need to be aware where our income comes from and our where futures may lie. We believe we are custodians of the land, as well as making our living and lifestyle from it. Let us hope that Government departments take this into account in the future and we are not overtaxed and rated which will make it difficult to make a living from the ever-decreasing income.