

VIII 1b

NOTES ON FOOD

Early MSS., including extracts
from various authors

Distribution of Food

In the Gingin district when a kangaroo is killed, say by a Tondarup, his relation, ngoondamat or ngangamat, a Tondarup, must have the head, no matter how far away he may have come from. His Ballarruk namayoga (mother-in-law) has the goong'a. His grandmother will have the ribs. The ngooljar have half the back and thighs, his sisters would have a share of what their husbands received. The father and mother received half the dowl, and the hunter himself will not eat any unless some is returned to him from those amongst whom he has distributed it. His wife is sure to get some from some of her moorurt.

In portioning out a kangaroo, Jubaitch gave the legs to his wife's father and mother, and to his mother's brothers; the fore-quarter was kept for himself and his wife and his own father and mother. All know which part of the kangaroo is their portion. The food is placed on the ground for Jubaitch's mother-in-law upon whom he must not look, nor can he speak to her. He "chucks" the food to his brothers, or leaves it on the ground, it was never passed from hand to hand, except to old fathers, or fathers' fathers.

The forearms, head and lower parts of the leg of the kangaroos were the portion of the women. Sometimes they had some of the tail, and the fat (karrung, boyn) of the kangaroo also belonged to the women, because the men disliked fat. The bony parts were their share, containing the wordung or marrow.

A man may give food from his hand to his own parents, and to his father's own brothers, and sometimes to his mother's own brothers, but in all cases the food is placed on the ground for the recipients to pick up. The fear of magic passing from the body of the giver to the receiver or vice versa, is the reason of this law.

A man cannot hand meat food to a woman of his wife's stock. In the Vasse district Doongunit a Wordungmat is kordamata (husband stock) to me, a Manitchmat. When I asked him for some meat food he went at once to his camp, divided a cooked opossum lengthwise, then gathering some clean boughs from a gum tree near, he placed the portion of opossum upon these, covering it over with more small boughs. He then brought

it over to my camp and laid it upon the ground beside me.

In the Albany and Esperance district, the same procedure was followed by men bearing the similar relationship towards me. Being a woman, I can ask my kordamata for food, or even go to their camp and take what I require without hindrance.

Hunting Woolber's information

Yowert-kaabeen = hunting the kangaroo into a boggy place, or peninsula, or some other place where it was difficult for the kangaroo to move. They got bogged in the swamps and were then easily killed. All the jungar, men, women and children from all adjoining camps, where the relatives lived, all came to the great hunt. Hundreds took part in the sport. Winter time (the wet season, ma'goor) was the season chosen for the hunting. Shouting, screaming, driving, urging the dogs, calling out to each other, making all kinds of noises. The kangaroo rushed hither and thither only to be still more frightened by the natives and the animals were soon forced in one direction towards a swamp or peninsula, and were then speared in great numbers. Much feasting and gorging then took place. The women making new bookas and gootas. The old people obtained the forepart and the ribs (ngaral) and nyimyteh (side), also the intestines. The head and forearms were eaten by the women and children. The backbone was also eaten by the men and women. The young men usually divided the tail between themselves and their babbin, brothers-in-law also shared the tail between them.

When about to hunt kangaroo the Vasse natives will sometimes say, "Doorga?" (which way does the wind blow?) If it is not in a favorable direction they will not attempt to hunt that day. During and after the wet season it was a favorite game of the natives to chase the kangaroo into the swamps (ben'jer) where they floundered about and were speared at leisure. In the winter season the kangaroo, opossum and other animals generally adhered to the woods and higher ground. Tortoises also came above ground and were easily caught.

Jalyeeka marrain = food given to a distant visiting tribe.

Woolber threw the food to his mother, sisters and brothers. He places it in a clean place for his kordamata. He gives it to his fathers out of his hand. He gives it to his koolangur (children) but throws it down for his nephew (sister's son) to pick up. He lays it on the ground in a clean place for his brothers-in-law. (The children usually eat first before their father and mother.) He lays it down in a clean place for his aunts (the mothers of his wives) and he also places it on a clean space for his wife or wives, to give it to their fathers.

Flying squirrels are procured and cooked in the same way as opossums.

The native dogs hunt by sight and scent, the native following their tracks as fast as he can. They frequently have the kangaroo killed before their master arrives, but they seldom attempt to devour it. The men say because they are too much tired and out of breath.

From Early Account of "Native Foods, Methods of Obtaining, Preparing, etc."

Birds are killed on the wing or whilst resting on the ground or in the water or upon branches of trees. They are also taken by spearing, snaring, noosing and netting. The spear used by the natives for throwing at birds is of very light make and can be projected with the throwing stick to a very great distance.

There is a never failing supply of food for the natives in the number and variety of wild fowl which frequent their rivers and lakes and swamp country. During the moulting season many black swans are caught through venturing out into the shallow water, the natives surrounding them and cutting off their retreat and the birds being unable to fly back into the deep water, are very soon despatched. The native companion is not generally killed as it is a bird of very friendly habit and will not desert a favourite camping ground even on the arrival of the settler. There is a singular peculiarity in connection with these birds which every traveller in the Nor'West has noticed and that is, their propensity for dancing. At any time of the day flocks of from two to two hundred will alight upon some open space and without paying any attention to a chance traveller who may have encamped close by, they at once proceed to "choose their partners" and spreading their wings and bending their bodies the birds indulge in a series of gyrations strikingly reminiscent of a scene in a ball room. With their soft exquisite blue grey plumage and graceful movements as they wind in and out in the mazes of their curious dance, they form a beautiful picture, which, however, presents no attraction to the hungry native who walks quietly up to within hitting distance of them and sending his kyley in amongst the dancing group seldom fails to bring down one of their number. Owing to the friendly disposition of the native companions they are rarely molested by the white men and the birds will often be seen going through their curious performances in the "house paddocks" adjoining the stations along the coast. The weight of a full grown bird is about twenty five lbs.

The wild turkey is often made the victim of an inherent curiosity which seems to be one of its chief attributes. The natives stalk the bird easily by holding a bush in front of them and gradually approaching it in a semi circuitous direction, the turkey meanwhile staring at the moving bush and wondering what it is. It thus allows native to get within hitting or spearing distance and as the hunter calculates his throwing distance to a nicety the bird is soon added to his larder. These birds have been known in a good season to weigh nearly thirty lbs.

With regard to the aquatic and other wild fowl indigenous to West Australia the aborigines have no "close season" for them; the birds are caught whenever the native is hungry. Duck and teal are caught by snaring or sometimes, if it is a deep pool, by the native swimming under water and breathing through a reed. When within reach of a duck he seizes it by the feet, drags it beneath the water, and winging its neck tucks it into his belt, securing a number of birds in this manner in a very quick time.

Netting birds is one of the most destructive methods of taking them of any that is practised. Geese, duck, teal, widgeon, shags, Eyre, II, pelicans, pigeons are procured in this way. "A large
286 square or oblong is made by lacing together pieces of old fishing nets that the natives may have. A strong cord is then passed through the meshes of one end and tied at both extremes of the net. The natives then go down to a lagoon...or they select an opening among the trees on the bank of a river through which the ducks or other birds are in the habit of passing....An old man ascends each of the (two) trees and over the topmost branch of both lowers the end of a strong cord passing through the net. The other end is tied near the root of each tree and serves for the native, who is stationed there, to raise or lower the net as it may be required. When set the ropes are hauled tight and the net dangles in the air between the two trees... All being ready, a native is left holding each end of the rope, and others are stationed at convenient places near, with little round pieces of bark in their hands to throw at the birds and drive them onwards as they approach the net. The women are then sent to put the birds up and they come flying through the open space towards the net.....; as they approach nearer, the two natives at the trees

utter a shrill whistle, resembling the note of the hawk, upon which the flock, which usually consists of ducks, lower their flight at once and proceeding onwards, strike full against the net, which is instantly lowered by the men attending to it, and the birds are left struggling in the water, or on the ground, entangled in its meshes.... Should the birds fly too high, or be inclined to take any other direction, little pieces of bark are thrown above them, or across their path, by the natives stationed for that purpose. These, circling through the air, make a whirring noise like the swoop of the eagle, when darting on his prey and the birds fancying their enemy is upon them, recede from the pieces of bark and lowering their flight, become entangled in the net. Early in the morning, late in the evening and occasionally in the night this work is conducted.

In these occupations the natives make use of a peculiar shrill whistle to frighten down the birds; it is produced by pulling out the underlip with the forefinger and thumb and pressing it together, whilst the tongue is placed against the groove, or hollow, thus formed, and the breath strongly forced through. Whistling is also practised in a variety of other ways and has peculiar sounds well known to the natives, which indicate the object of the call. It is used to call attention, to point out that game is near, to make each other aware of their respective positions in a wooded country, or to put another on his guard that an enemy is near, etc. etc."

Grey gives a very lively description of killing cockatoos with the kiley, a method still in use amongst the aborigines. "A native Grey, II, perceives a large flight of cockatoos in a forest which
281-2 encircles a lagoon; the expanse of water affords an open clear space above it, unencumbered with trees, but which raise their gigantic forms all around, more vigorous in their growth from the damp soil in which they flourish, and in their leafy summits sit a countless number of cockatoos, screaming and flying from tree to tree, as they make their arrangements for a night's sound sleep. The native throws aside his cloak, so that he may not even have this slight covering to impede his motions, draws his kiley from his belt, and with a noiseless elastic step approaches the lagoon, creeping from tree to tree, from bush to bush, and disturbing the birds as

little as possible; their sentinels, however, take the alarm, the cockatoos farthest from the water fly to the trees near its edge, and thus they keep concentrating their forces as the native advances; they are aware that danger is at hand but are ignorant of its nature. At length, the pursuer almost reaches the edge of the water, and the scared cockatoos, with wild cries, spring into the air; at the same time the native raises his right hand high over his shoulder, and bounding forward with his utmost speed for a few paces, to give impetus to his blow, the kiley quits his hand as if it would strike the water, but when it has almost touched the unruffled surface of the lake, it spins upwards with inconceivable velocity, and with the strangest contortions. In vain the terrified cockatoos strive to avoid it; it sweeps wildly and uncertainly through the air, and so eccentric are its motions that it requires but a slight stretch of the imagination to fancy it endowed with life, and with fell swoops is in rapid pursuit of the devoted birds - some of whom are almost certain to be brought screaming to the earth.

But the wily savage has not yet done with them. He avails himself of the extraordinary attachment which these birds have for one another, and fastening a wounded one to a tree, so that its cries may induce its companions to return, he watches his opportunity by throwing his kiley or spear to add another bird or two ^{to} the booty he has already obtained.

Mr. Durlacher mentions the native mode of securing white cockatoos by night hunting. "The birds are very cunning about choosing their roosting places, as the tallest tree is generally chosen, growing well away from the others. A dark windy night is chosen for the sport, because the natives know that on a clear still moonlight night it would be almost impossible to capture the birds, as they are so watchful, so on a suitable night three or four young men will steal quietly away from their camp making towards where the birds are roosting and very cautiously they have to move, as the breaking of a twig or the sound of a voice will start the sentinel birds who are generally located on some trees at some distance from the others, and their warning cry of "ark-ark" will set the whole flock into a state of alarm and sudden flight. But supposing the natives have reached the

Fish Traps, etc.

Dampier mentions the weirs of stone which had been made by the natives across little coves or branches of the sea on the northern coast.

Vancouver noticed at Oyster Harbour the remains of several fish weirs about 8 or 9 inches high. Some were constructed with loose stones, others with sticks and stumps of wood. They stopped up the mouths of brooks.

Capture of Dugong (To be corrected)

The capture of the great dugong "yamajee" or sea pig (?) is thus described by Mr. Durlacher, who prefaces his description with an account of the habits of those curious marine creatures. "The dugong are really in their habits and partly in appearance like a pig, they are found at certain seasons of the year schooling in small numbers in the inlets and mangrove creeks of the mainland and the sheltered passages or straits between the small islands which abound off the Nor'West coast; there they may be seen rooting about on the sea bottom for their food, which I believe consists chiefly of succulent seaweeds and mussels. They have a snout like a pig, also tusks and bristles, the bristles however are only found growing on the snout and partly along the back, the rest of the body being smooth like the porpoise, the flippers and tail somewhat resembling those of a porpoise only thicker and more fleshy. They suckle their young and the flesh closely resembles pork when taken from certain parts of the body, and from other parts it is like beef, the fat portion when properly cured is very hard to distinguish from first class bacon. The weight of a large dugong would be from four to five hundred pounds, and of the smaller ones from one hundred and fifty upwards.....I will now go on to show what skill and ingenuity is exercised by the natives in its capture...as mentioned before, at certain seasons they are found in small schools in the sheltered bays and creeks along the coast, so this is the time that the natives look forward to...when the hunting season comes on the natives congregate on the sea coast adjacent to the feeding grounds of the dugong, a watch is established as a native is stationed on some small hill close to the seashore and commanding a good view of the coastline, bay or inlet, as the case may be. When the dugong is sighted a signal is

given and in a short time a number of the young men who are capable and expert swimmers and divers, will be seen quickly speeding along the seashore to the nearest point of the land to where the dugong are feeding each man carrying in his hair or waistband a sharp pointed wooden skewer, some also bearing with them a large strong net made of spinifex fibre, and somewhat similar in form to a tennis net, having two wooden supports, one on each end; they also carry with them a number of smooth round stones, about the size of a small apple. The native on the look out hill will be all the time informing the fishermen, by hand signals, how many dugong he can see, the direction in which they are moving, and other information which may help the swimmers towards a successful capture. The men, when they arrive at the spot on the shore from whence they take to the sea and swim, divide into two parties, one party taking the net, with which they swim cautiously towards the prey, the other natives swim out beyond the school so that the dugong are between them and the shore; then they form a sort of half circle and move quietly towards the dugong, the net-bearers meanwhile still approaching from the shore. These movements go on until both parties are close up to their game, and at a given signal, down go the half circle of swimmers beneath the water, the men with the net remaining on the surface holding the net straight up and down by means of the pole at each end; the swimmers having disappeared below the surface. If their movements could be watched, you would see them crawling quickly over the seabed, each native as he moves along hitting together two stones which he has brought with him, the concussion causing, as is commonly known, a noise like a mimic explosion, and this has a most terrifying effect on the dugong, who rush straight away from the sound and most likely one of them will dart straight into the net that is being held by the other natives. If one does get entangled, the fun and excitement commences, as the dugong, finding itself entangled, plunges violently forward carrying net and fishermen with it, but the natives hold on firmly though they are dragged here and there, sometimes on top of the water and sometimes underneath, and in the distance their black heads look like cork floats bobbing up and down; this is kept up until fish or fishermen are exhausted. If the men get exhausted first, both net and dugong are often lost, but if the reverse happens,

the natives, assisted by the other swimmers, approaching their exhausted prey, gouge its eyes with a sharp pointed stick that they have brought with them, when the poor creature is quite helpless and easily towed ashore. Then there is jubilation among the natives as meat and oil are plentiful for a time, the oil especially having wonderful medicinal properties equal to the best cod liver oil, and natives with chest complaints thrive wonderfully if they drink it, which a native will seldom refuse to do."

In the winter the mullet become half blind through the mixture of fresh water in the estuaries.

N.W.

beeloornjoonoo = fish like giddengidden

Every season has its special products

Game traps = widda-widda (inland Pindana)

Totem foods, how increased (already mentioned)

Eeberingmalla = large porpoise

Pajjalburra = ordinary porpoise

Yal'ngamoo = a shrub, it grows in the pindan (goordee a wooden hammer made from the mangrove tree) and the women hammer it with the goordee and tie it with moongoo (fibrous bark) and make several bunches. Then it is put in the booroo and covered up and after a night there, it is taken out and wetted and then it is put on the fire and it smells very powerfully when cooked. They they get some sand or earth (burnda) and mix it with it and sprinkle it over the water when the fish come up at once.

There is a law in connection with bardi or grub hunting which the natives strictly adhere to. Until the top of the xanthorrhoea is dead the grubs will not attain the state of perfection in which the natives desire to find them and therefore at a particular season of the year they break off the tops in order to have an abundance of this much prized food. When two or more natives are hunting over their land and one of them breaks off the tops of certain trees, those trees are his property and no other native can touch them. No mistake can be made on this point, for when the top of the tree dies naturally it retains its upright position, whereas when the native prepares it he knocks....

Red gum, mahogany, stinkwood as well as the wattle and xanthorrhoea, yield a plentiful supply of bardi. Some are white, others are of a reddish tint. The wattle tree has the largest grub as well as the best for eating, the xanthorrhoea and mahogany come next in the abundance of their supply. The grubs from the mahogany if matured are of a reddish colour. Some time after a fire has been through a mahogany forest the natives go hunting for the bardi that feed upon the dead wood, and putting their ears against the dead trunks listen for the sound of the bardi eating the wood. As soon as the welcome sound proclaims the presence of the bardi the bark is chopped away and the natives collect the grubs, sometimes more than fifty lbs being obtained from one tree.

Manna is variously described as saccharine exudation from the leaves of certain species of Eucalyptus and an emanation from a cicadous insect. Baron von Mueller states that it is in some localities an exudation of the bark of *Myoporum platycarpum*. It is found both in the Nor'West and in the Southern portion of the State.

This substance which is of a white colour and exceedingly sweet, is found early in the morning in small pieces on the ground under the trees, and is greedily eaten by the natives. The quantity collected under the trees is, however, too small to form at any time a staple article of food for the natives.

White ants are always eaten raw. Fungi are sometimes roasted, but several species are eaten without any preparation. Animals, birds, frogs, reptiles, fish etc. are usually cooked, the length of time given to the cooking process being usually proportioned to the hunger of the native. Nearly all vegetables are cooked, some steamed, others roasted or baked. The steaming process consists of putting wet grass instead of leaves or dried grass on the heated stones, tying the vegetables up in small bundles and then placing layers of wet and dry grass alternately over them covering them up finally with earth. The building of the earth covering is begun at the base and finished to about one third from the top of the pile of wet grass. A sharp pointed stick is then stuck through the heap in three or four different places, and quickly withdrawing it the native pours in some water and rapidly covering up the holes made by the stick and also the opening at the top the steam is thus kept in and the vegetables excellently well cooked. Several families will cook in the same oven, their respective "bundles" never getting mixed, nor any mistake occurring through giving the wrong "parcel".

(To be confirmed)

Water Supply (early notes)

It is equally the same as regards water, the aborigine of the arid interior has many resources at his command to supply his thirst. Where the white man would perish from thirst, the native, from his knowledge of the country, knows every nook and cranny, every tree, rock and other receptacle where water can be obtained. If a shower of rain falls he knows the very place where a little water is most likely to be collected, and where it is longest retained. His methods for obtaining it range from well-sinking to "dew-collecting".

....blacks is that in the most arid districts of the interior there are to be found trees which contain water in their lateral roots, which lie just below the surface of the ground. Eyre gives a description of one of these trees in his "Discoveries" (I, 350) : "Selecting a healthy looking tree out of the gum scrub, the native digs round at a few feet from the trunk, to find the lateral roots... he rarely digs in the wrong place. Upon breaking the end next to the tree, the root is lifted, and run out for twenty or thirty feet; the bark is then peeled off and the root broken into pieces, six or eight inches long, and these again, if thick, are split into thinner pieces; they are then sucked, or shaken over a piece of bark or stuck together in the bark upon their ends and water is slowly discharged from them; if shaken, it comes out like a shower of very fine rain. The roots vary in diameter from one inch to three, the best are those from one to two and a half inches and of great length. The quantity of water contained in a good root would probably fill two thirds of a pint." This water is very good to the taste.

Water can also be obtained from the gnarls, boles, or excrescences to be found on many species of the Eucalyptus, the water however always partaking of the "gummy" flavour of the tree. Almost all kinds of Eucalyptus will afford a certain amount of water and the mallee, jamwood, bloodwood, and also several species of mulga contain either in their roots or trunks a storage of water, also acacias and some casuarinas. Besides these, the natives have several other methods of obtaining drink. Eyre mentions that of collecting the dew which falls very heavily in many portions of the sterile wastes of W.A. "I took a

sponge," says Eyre, "and went to try and collect some of the dew which was hanging in spangles upon the grass and shrubs; brushing these with the sponge I squeezed it, when saturated, into a quart pot which in an hour's time I filled with water. The native boys were occupied in the same way; and by using a handful of fine grass instead of a sponge, they collected about a quart.... The natives made use of a large oblong vessel of bark which they held under the branches whilst they brush them with a little grass; the water thus falls into the trough held for it."

The New Norcia natives obtained water from the white gum tree. An excrescence would be noticed on the side of the trunk having a rusty kind of track from it leading to the ground. This was invariably a sign that water was contained in the tree. The natives tapped the excrescence and the water spouted out.

Interior of Southern W.A.

Rockholes found in granite. To prevent animals getting at rock holes in dry country they are filled with sticks which sometimes give the water a fetid smell and taste.

Bibbulmun, Blackwood

Water was obtained from the paperbark tree. A hole was made in the tree where there was a lump on the surface and by getting into one of the "veins" of the tree water was obtained. None was got from roots in this district.

The only artificial drinks in use amongst the West Australians are those made from dissolving manna, gum, wild honey, banksia flowers, or the inner bark of the gouty stemmed tree in water, without any other preparation.

Further early notes on Water Supply

.....found amongst the tribes near the De Grey River and as some native wells are also found in the vicinity, the natives may have possibly invented the shovel for this purpose, as well as for digging roots. The wooden scoops might also be brought into requisition for lifting out the earth.

Marginal Note : Wooden shovels without handles were used for well making and pit digging by the Gingin natives.

Stokes mentions the ingenuity and fertility of resource which the natives exhibit in their methods of procuring water, "collecting it from the leaves in places where heavy dews fall, from the roots of trees, and by tapping also the knotty excrescences of trees they find the fluid which they suck out." Many other methods unknown to white travellers who cross the apparently waterless and sterile wastes of the interior are practised by the natives in W.A.

The rockholes seem to be a special characteristic of W.A., without them it would be impossible for the natives of some districts to exist. They are mostly found in granite, part of which has been weathered away, thus forming natural "tanks" of various forms and size. Some of these rockholes hold many thousand gallons of water, and as the water cannot escape by percolation the supply will last a long time. To prevent animals getting at the water, most of the rockholes are filled with loose lying sticks, which, effective as they may be in keeping the animals off, deteriorate the quality of the water and often make it undrinkable. Many of these "gnamma-holes" were found on the route traversed by the Trans-Australian Railway Survey Party. The rocks being mostly of sandstone formation would not from their nature retain the water for any length of time.

The native wells which Helms came upon in his journey across the interior were "irregularly dug holes, rarely very deep and mostly found near the base of some range or hill where a concentrating catchment area promises a good soakage. These holes are often filled with sticks and debris, and frequently even with sand, to prevent evaporation and hinder animals from getting at the water.

Certain small soakages under rocks near the base of some hills known to the natives and yielding only small supplies, are always completely covered up again when leaving.

Sometimes hollow trees harbor water and preserve it for a long time from evaporation. The keen eye of a black will easily detect such a reservoir by one or the other indication.....On one occasion, a native noticed a string of ants going up and down a tree, entering and emerging from a small knothole about his shoulder height from the ground. This was quite sufficient indication for him and making himself a tube from a straight twig, by loosening the bark between his strong jaws, and then stripping it, he obtained a drink by sucking the water up through this impromptu syphon."

The custom of drinking water from a pool by tossing it with the right hand into the mouth is a common practice amongst the Australian and African natives, but the same method may be observed amongst the Irish and Scotch peasantry at the present day.

Food Restrictions

J.O. Brown, informant

They eat all birds except carrion, as the eagle (toonbon), the crow (wakera) and the hawk (pelleka) ?

Nyammareet, a Mininup native, never ate any emu, the turtle was his oobaree.

Except boys and girls who were woolgo from bandicoot and waiyal the Southern natives ate every other bird, animal and fish. If they have not however been trained to eat bush foods there are many animals they won't touch. There are many who will not touch emu, because they have not eaten it when young.

Food Restrictions (Early Notes)

Restrictions and limitations as to various kinds of food are placed upon the natives from the age of nine or ten until, in the case of a female, she is married, and of a man when he has been completely initiated. There are more restrictions placed upon the females, and for a longer period, than upon the males. The children of both sexes are allowed to eat anything until they are about nine years old, at which age compulsory abstinence commences for the young natives. As a rule the aborigines do not eat fat, it is only put to external use in greasing their bodies, for which purpose it is always in request.

Each tribe has its own restrictions with regard to certain foods, hence to enumerate the various kinds of food forbidden to the young native in each tribe would be impossible; their laws in this respect are numerous and complex and in consequence of the dire penalties attached to breaches of these laws, serious diseases and in most cases death by the boylya, they are implicitly obeyed.

It is supposed by some that these laws were established by the old men in order to ensure for their declining years those choice foods which owing to their advanced age they were unable to procure for themselves and the suggestion has also been made by some writers that the interdiction was due to a desire to preserve some of those animals which tended through their being a favorite food of the natives, to become extinct. As regards the first of these suppositions, there may be some foundation for it in the fact that the prohibited foods are mainly those that are most prized by the natives, such as the young of certain animals, kangaroos, opossums, etc. The native pheasant (a bird of very delicate flavour), certain kinds of fungi, mussels, duck, etc.

As to the second suggestion, the very retarded mental development of the aborigines and the general improvidence which is one of their most distinguishing characteristics renders it highly improbable that they should be possessed of sufficient foresight to enable them to formulate laws which in their purpose so closely resemble certain game laws in vogue in England.

The origin of these laws cannot now be traced. To all inquiries

amongst the various tribes met with, the only answer comes that "our fathers did so, therefore we follow." This firm and unalterable belief in the doctrines of their forefathers handed down to them by their doctors and sorcerers who maintain themselves in comfort over the credulity of their younger brethren, suffices to render the young natives obedient in abstaining from the good food they themselves have procured, and which, if forbidden, they must hand over to their elders, no matter how greatly they themselves may be suffering from hunger. The position woman occupies amongst the aborigines would have rendered her an obedient slave to the dictates of her lords and masters, but the superstitious faith of the young and active men of the tribes must be very great indeed to enable them to obey so conscientiously a system which presses upon them so injuriously and which is so clearly for the advantage of the old and useless members of the community.

A single example of the forbidden foods will suffice. Eyre states that after ten years of age "boys are now forbidden to eat the red kangaroo or the female, or the young ones of the other kinds; the musk duck, the white crane, the bandicoot, the native pheasant.....the native companion, some kinds of fungi, the old male and female opossum, a kind of wallabie, three kinds of fish, the black duck, widgeon, whistling duck, shag, eagle, female water-mole, two kinds of turtles, and some other varieties of food. When young men they are disallowed the black duck, the widgeon, the whistling duck, the emu, the eggs of the emu, a fish called kalapko, the red kangaroo, the young of other kinds of kangaroo, if taken from the pouch, a kind of shag....the snake, the white crane, the eagle, a kind of water-mole, two kinds of turtle, the musk duck, the native dog, the large grub dug out of the ground, a vegetable food called war-itch, the native companion, bandicoot, old male opossum, wallabie, coot, two fishes....etc. Married men of thirty five to forty years of age, are still forbidden the red kangaroo, the young of any kangaroo from the pouch, the fish kelapko, the shag yarrilla, the coot, the white crane, the turtle rinka, the native companion, the eagle, etc. Young females, before the breasts are fully developed, are disallowed

the young of any of the kangaroo species if taken from the pouch, the red kangaroo, the white crane, the bandicoot, the native companion, the old male opossum, the wallaby...the shag...the eagle etc. Full grown young females are not allowed to eat the male opossum, the wallaby, the red kangaroo, the fish kelapko, the black duck, the widgeon, the whistling duck, the coote, the native companion, two turtles, the emu, the emu's egg, the snake, crayfish which may have deformed claws, the female or the young from the pouch of any kangaroo, the musk duck, the white crane, the bandicoot, the wild dog, two kinds of fish...the shag...the water-mole, the ground grub, the vegetable food eaten by the emu (war-itch) etc.

Fish that are taken by the men diving under the cliffs, and which are always females about to deposit their spawn, are also forbidden to the native women.

At Napier Broome Bay....they consume large quantities of a very fine rock oyster which is found on the shores of that bay, and at their camping places on the South of Vansittart Bay I found large banks of shell, consisting of cockle, hermit crab and immense numbers of small pearl oysters.

J.O. Brown (informant)

The fruit of the mangrove and grass seeds are important items in their bill of fare and occasionally they get kangaroo, emu and turkey (the bustard).

The K.G.S. natives mixed a kind of dark mould (called by them poo'tchee) with their "meern" or roots, but whether its purpose was to mitigate the bitterness of the root, or to act as a preventive to the hunger resulting after the digestion of the meern cannot be ascertained. The natives always carried small quantities of pootchee about with them, but only mixed it with certain root foods, never with animal food. (To be corrected)

The natives have a rough mill on which they grind and pound seeds and other things. This mill is merely a flat stone usually about a foot square. A large round water-worn stone about the size of an emu egg is used in the hand. This is worked with a circular motion on the flat stone beneath, and grinds up the seeds etc. There is usually a considerable cavity in the flat stone as it becomes worn in the centre with constant grinding. These rude mills are often carried about by their owners for months, sometimes for years. A conch shell is used to carry water not only on the coast but inland.

Boolee boolee at Weld Range.

Koolyoo, gooraara etc.

R.M. Lyon, writing in the Perth Gazette of April 13th, 1833, says that it was the custom of the Perth native women to present a cake made of the fruit of the zamia and the flesh of frogs to the men when they returned from a day's hunting. "After this, the whole tribe sup together, but each on his own fish or fowls. On the kangaroo they meal in common." (?)

Brough Smyth, in alluding to the preparation of the by-yu or zamia nuts described by Grey and mentioned by Captain Cook, is of opinion that this method of treating the nut has been carried from the north-east to the north-west (?) (Aborigines of Victoria, 215, I.)

In the West Kimberley district near Broome, there is a kind of fatty/^{red}earth which the natives are very fond of, either eating it by itself or mixing it up with seeds and other edible substances and baking it in the ashes. Humboldt mentions a similar practice obtaining amongst the "Ottomac" Indians of Central America.

(The red earth is also mixed with the mene (or men) root by the K.G.S. natives and others.)

The natives of Gibson's Desert mix the seeds of the box tree with grass seeds into cakes which are pounded and usually eaten unbaked.

Eucla and Fraser Range

Acacia and grass seeds pounded and mixed with water and formed into cakes and baked.

Near some of the rockholes in the Fraser Range district the flat surfaces of the rocks show traces of many generations of seed pounding. They are in some places deeply indented through repeated use. The upper "mill" stones are of various sizes and may be used with one or both hands.

Kurrajong seeds are roasted and eaten in the Victoria Desert district, the natives also chewing the roots for their sap, but not swallowing them unless they are young roots. The gum of the kurrajong is also eaten.

The bark of mallee roots is stripped off, placed on a slow fire, which dries and loosens the outer skin which is removed. It is then cooked lightly on the embers until it becomes crisp when it is pounded with the wanna into a fine fibrous mass.

A species of thysanotus yields tuberous roots which being rather watery quench both hunger and thirst.

During Gregory's Nor'West expedition he came upon some natives encamped on a channel of the Sherlock River who were employed capturing partridges by means of nets constructed out of the leaf of the triodia neatly twisted and netted in the same way as done by ourselves, the mesh varying from one to five inches according to the purpose to which it is applied. It was very singular to observe the mode in which they induced the birds to enter the nets, or rather cages, prepared for them. In the first instance they place ragged bushes all round the small pools, with the exception of a few spaces five or six feet wide, from which openings they stick in a double set of twigs, arching so as to meet overhead in the centre one or two feet from the ground; these little avenues lead away for several yards, and then terminate with a net thrown over a few light sticks at the end. The birds first alight on the margin of the pool, but after drinking do not take flight at once but run up the only opening which leads them first under the arch of twigs and finally into the net, which is then drawn to by the hunter lying in wait under a few bushes.

(Gregory's Journal, P. 71)

Miscellaneous

During Grey's journey overland from Gantheaume Bay to Perth, he passed through what was evidently a thickly populated district, and one which must have been inhabited for a long series of years, judging by the extensive and well worked warran grounds, the obtaining of which necessitated hard manual labour on the part of the natives. "For three and a half consecutive miles," said Grey, (Journal, II, P. 12) "we traversed a fertile piece of land, literally perforated with the holes the natives had made to dig this root." It was here that Grey came upon two native villages which were evidently intended as fixed places of residence. Grey concluded that the superior huts, well marked roads, deeply sunk wells, and extensive warran grounds all spoke of a large and comparatively speaking resident population the cause undoubtedly being the great facilities for procuring food in so rich a soil. (Ibid, 21) This district whose fertility Grey eulogises so highly was in the vicinity of the present town of Northampton and northward of the Hutt River. It was at this point Grey stated, that the geological formations of the northwestern and southwestern portions of the continent were

associated together, the flora of which was so made up of those of both that it was impossible to tell which predominated.

Dr. House states that there was very little game in the district he travelled over. From the King River to the Gleneig estuary the only wildfowl seen were two pigmy geese. Kangaroos are fairly numerous. The scarcity of water fowl he attributes to the rivers and pools being infested with crocodiles.

L.P. Hall, Hay district

The native foods of the Hay district natives were wattle seeds ground between stones, bark of white gum roots roasted, zamia palm fruit (husk eaten after having been first soaked in water and then buried in the ground), these took about a fortnight or so in preparation. Various species of berries and bulbous roots, yams, etc., two kinds of fungi, grubs (bardies etc.)

Mr. S.H. Meares of Tambrey Tableland (Nor'West) states that kangaroos, emus, tree seeds, turkeys, ducks and roots etc. formed the chief food of the Tableland natives.

In the region of Prince Regent River, Grey mentions (Journal, I, 112) the various uses to which the gouty stemmed tree is put by the natives. "The foliage of this tree was slight, but graceful, and it was loaded with a fruit of an elliptical form as large as a cocconut. This fruit was inclosed in a rind, closely resembling that of the almond, and inside the rind was a shell containing a soft white pulp in which was placed a species of almond, very palatable to the taste and arranged in this pulp much in the manner in which the seeds are placed in the pomegranate. Upon the bark of these trees being cut they yielded in small quantities a nutritious white gum, which both in taste and appearance resembles macaroni; and upon this bark being soaked in hot water, an agreeable mucilaginous.....

According to H. Williams, Eucla, the seed and root foods of the Eucla district natives were a berry called ngura, the quondong, the bark of mallee species, which was prepared by baking in hot ashes and afterwards pounding between hot stones. The pulp was sometimes mixed with white ants. It was frequently eaten unpounded.

According to Rev. J. Flood, the Maura (New Norcia) natives used no traps for securing game. They surrounded the kangaroo and speared them, and caught the opossums in hollow trees.

Several kinds of roots, warran, nuts, ma-atcha, native potatoes, guanna (gum?), chu-puck (another kind of potato), poo-aun (a red onion growing on sand plains), wanga, koo-koin (red berries), woo-da (big mushroom), wa-miller, poo-ee-a (excrescences on leaves of some trees at certain times).

Mr. Durlacher describes the native methods of catching carpet snake. "The hunters'...keen eyes have detected the trail of a large carpet snake which they are tracing up, probably to find that the reptile has crawled into a hole in the earth, from which it will soon be dragged forth.

One of the natives will procure a long thin green stick in length about three or four feet, and this supple wand is pushed into the hole as far as it will go and if the stick happens to touch the snake, then a sharp digging stick will be drawn by one of the natives from his waist band and a hole will be dug down just over where the snake is resting, then.....the snake will be worked along until the native by putting his hand down into the hole that he has dug from above will be able to seize the creature by the tail and draw it about half way out when its back is broken by a sharp blow with a stick or club, then it will be helpless and the natives will not fear it, but will after breaking its fangs wind it round their bare bodies where it may be twisting and writhing all the time."

The grubs or earthworms found below the surface of the ground are sometimes very large, but they are neither so pleasant in flavour, nor so much sought after as those procured from the wattle and xanthorrhoea trees. Those found in dead timber are much smaller than the earth worms, and are usually eaten raw.

Grey states (Journal, II, 298) that there are some tracts of land which abound in gum, kwon-nat, etc. which numerous families appear to have an acknowledged right to visit at the period of the year when this article is in season, although they are not allowed to come there at any other time.

(It was in search of kwonnat, supposed to be a native cereal, that an expedition under Ensign Dale was sent out by Governor Stirling in Jan. 1832.)

(To be corrected and added to)

From the list furnished by Grey it will be seen that the vegetable foods of the aborigines were by no means scanty. Their abundance varied with the nature of the soil and other causes but there was no lack of edible roots and tubers amongst the natives before the advent of the whites. In addition to those roots the various fruits found throughout the State consisted of quandongs, native currants, custard apples, nuts of many kinds, the fruit of the mesembryanthemum and several species of figs and many kinds and varieties of roots and fruits which need not be particularised here. Most of these were agreeable in taste and flavour and it was no uncommon thing amongst the settlers in the early days to live practically on native foods for a considerable period owing to the uncertainty of regular supplies from home and while the country had not yet had time to yield its own produce. Some of the roots resembled a mild onion in flavour, others were somewhat similar to the English potato, others again (like the "taro", a bulbous root much eaten by the natives of the Nor'West) were of the sweet potato variety. Native carrots, parsnips, beans, spinach, cabbage and many others serve as vegetable foods for the early settlers, and at the present time the native spinach (locally called "fat hen") is used as a vegetable in its season by the whites in the interior.

The mene (a species of Haemodorum) is said by the natives to cause dysentery when eaten by itself, and to obviate its evil effects they mix it with a curious kind of red earth of a fatty substance which destroys the

Of the vegetable foods eaten by the natives Grey enumerates the following :-

Dioscorea, two species

Haemodorum, several species

Geranium, several species

Boerhaavia, two species

Orchis, several species

Some of these, says Grey, are in season in every period of the year, and the natives regulate their visits to the different districts accordingly. The natives have a law that no plant bearing seeds is to be dug up after it has flowered; they then call them (for example) the mother of Bohn, the mother of Mudga, etc. and so strict are they in their observance of this rule that I have never seen a native violate it...In the Province of Victoria....I have seen tracts of land several square miles in extent, so thickly studded with holes, where the natives had been digging up yams (dioscorea) that it was difficult to walk across it. Again in the sandy desert country which surrounds, for many miles, the town of Perth, the different species of Haemodorum are very plentiful.

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Native Foods, etc.

Insects used as food by W.A. aborigines.

W.L. Froggatt, F.L.S., Government Entomologist, Sydney, states that his father, during a visit in 1896 to Hannan's Kalgoorlie, having seen a bundle containing white ants in the possession of a native woman who told him they were "very good to eat", made inquiries as to the method of obtaining and cleaning the termites which was thus described to him.

"The work of obtaining the immature winged ones, which is the only kind they eat, is as follows :- After finding the nest, which is generally in a hollow leg, they dry-blow them. They get a piece of bark and gently brush up the mass of ants and dirt, and then keep throwing them up in the air, when the smaller ants, workers and soldiers, the dust and most of the dirt blow to the end of the bark, while the fat larval ones, being the heaviest, fall out pretty well by themselves and after a few more such siftings are scraped up and collected together easily, for by this time they are disabled by such rough treatment. The gins then get the inner bark (of a fibrous nature) from some tree (the species of which is unknown to me) and beat and pull it to pieces. Then taking a bit about the size of a matchbox they fill it with the half dead ants and chew it until they have extracted all the goodness out of the mouthful, and then fill it up again. A pint of larval termites seems to be about a fair meal. I cannot hear that they ever cook them, but eat them in the same manner as they do the big white grubs, which they are always hunting for a few inches below the soil of nearly every bush that grows here. They invariably carry a stick about ten feet long (?) sharpened at both ends which they use for digging out these grubs.

Honey bees (*Trigona carbonaria*) are to be found in many parts of the Nor'West, and are used as food by the natives who eat beeswax and honey all mixed up together.

Herp manna. According to W. Froggatt F.L.S. the coverings of the larvae of small hemopterous insects belonging to the family Psyllidae which when full grown are like diminutive cicadas. They are particularly abundant at certain seasons upon the small dwarfed eucalypts

popularly known as mallee scrub. At these times the natives flock to those places where the manna is to be obtained. The two species of insects which produce this kind of lerp scales are spindylaspis, eucalupti and S. munnifera.

Cicadas. The pupae and perfect insect of several species of these are eaten by the natives.

Grubs of many kinds, wood grubs, moth and some kinds of beetle grubs, are much relished by the natives, the black boy and wattle grubs being special delicacies.

..... from fear and for protection, and in the second place, if a man's foot ventured near a turtle's head, it would be promptly be reduced to a pulp, with the same ease that the turtle smashes up the large pearlshell oysters to enable it to eat the fish within.

"Some 15 years ago," says Mr. Brown, "I was on a boating holiday with some friends. We went out from Cossack to DeLambre and the Flying Foam Passage. It was about Christmas time and the weather was very warm. We were one day about noon in a dinghey off De Lambre.

Suddenly one of the party called out, 'There's a turtle.' The turtle was about a few hundred yards away. We towed quietly towards it and when about a hundred yards off, a native named "Whalebone" who was in our dinghey, slipped gently overboard. We stopped pulling.

Whalebone swam within about 10 yards and then dived. In two or three minutes - it appeared much longer to us watching - he rose alongside the turtle. In a few seconds there was a most exciting struggle with great splashing of water and then Whalebone was astride on the turtle's back. We tried to head it towards the shore about a half mile off, but it always struggled to make for the open sea. For, I should think, about 15 minutes the struggle continued. The native was too much for the turtle and he kept sinking it and bringing it to the surface until it became exhausted and drowned. We then threw a rope to Whalebone and towed him and the turtle about half a mile to the beach at DeLambre. We turned it over on the beach, cut its throat and opened it to let it bleed. It was a fine turtle and would have weighed from 180 to 200 lbs."

Mr. Brown also states that the food of the inland natives, the "Hercardies" is chiefly iguanas, lizards, snakes, white ants, honey, chinderbie seed, wild turkey, emu, kangaroo and seeds robbed from the nests of black ants. The white ants nests are as much appreciated by them as the ants. There is a small species of wild bee, which makes its home in a hollow tree. When the bees have completed their labours, the hive contains only about a quart of honey. When the natives rob these hives, they eat honey, wax, bees bread and bees if any have become attached to the honey bag. What is called chinderkie is the seed of a wild grass, like oats, but with a smaller grain. Turkeys and emus are speared or caught with nets.

There is a small black ant that is very industrious and gathers in its nest a large quantity of grass seeds. The natives go to work with digging sticks and root these nests up until they get at the store when they rob the ants of their grain. They often get as much as a bucket full of seeds from one nest.

Mr. Joseph Bradshaw during his trip to the Prince Regent River, came upon a remarkable wall. "A little valley issuing out of the range on the lower side had its outlet obstructed by an artificial stone wall that had evidently been in existence for many years, as large trees had grown round it. It was about two chains long reaching from one bank of the valley to the other, and originally had been 4 ft. and 5 ft. high. Some of its lower stones would weigh fully a hundred weight. I could form no conjecture as to what purpose it had been intended for. It was not nearly high enough to be of service as a kangaroo or wallaby battue, as those animals would readily vault over it."

Mr. F. Gregory who explored the Upper Murchison, Gascoyne and Lyons Rivers in 1858 mentions "a very beautiful convolvulus which we afterwards found to bear roots like a sweet potato, some of them more than a pound weight and well flavoured, forming a very important article of food for the natives. (koolyoo?) (Gregory's Explorations, 39 et seq, 1857.)

A small species of rock melon was also found in great abundance about the size of a pigeon's egg, somewhat bitter to the taste, but they were not ripe; in other respects it much resembles the cultivated varieties."

In his travels up the Gascoyne River Gregory "came upon a native encampment.....Around their fires, of which there were many, were ranged a number of wooden scoops capable of holding from two to four quarts; these contained a variety of seed and roots; the most plentiful was a species of grain, like small plump drake, gathered from a grass much resembling wheat, which is very abundant on the alluvial flats, and a root resembling an onion, not larger than a pistol bullet, a few rats,,...and a small variety of samphire like a Hottentot fig."

Near Mount Augustus Gregory found some native watermelons and a fruit shaped like a pear, three inches in length, growing on a small creeper, the interior of the fruit consisting of a number of small flat seeds. (This fruit is to be found in the bush as far north as the 18th degree of latitude and is much used by the natives of La Grange and Gordon Bays.)

An emu hunt is far more exciting to the native than the pursuit of any other game. In the first place, the flesh of the bird is according to native taste, exceedingly nutritious, and is therefore highly prized by the aborigines. It is a very large bird sometimes weighing over 130 lbs. When standing in an ordinary position the head is about five feet from the ground. The flesh of the emu, by a wise disposition of the sorcerers, is forbidden to young men before certain ceremonies are performed, and heavy penalties are pronounced against unauthorized persons who venture to touch it, these penalties being invariably rigidly enforced. Sometimes, in addition to the initiation ceremony which entitles the young aborigine to eat the flesh of emu and its eggs, he must first be well rubbed all over with emu fat, an old man performing the ceremony.

During his journey from South Australia to the Oakover in Long. 121° 23, lat 20° 55, Warburton's diet for two days consisted of "a species of strychnos, from which the party extracted the seeds, the fruit was eaten both raw and boiled. On a tributary of the Oakover they found some bulrush roots (a species of typha) which the party found very good either roasted in the ashes or boiled.

F.S. Brockman states that the food of the natives of Northwest Kimberley besides kangaroo (which on the good grass land they can procure in almost unlimited quantity), fish and crocodiles; several sorts of yams, which are found growing along the valleys of the rivers; mussels, which they obtain in many of the rock pools; and various kinds of nuts, including the baobab, pandanus, and a class of nut similar in size and flavor to the almond, but with a very hard shell...and the fruit of a palm which is found on the high basaltic country in the neighbourhood of Mount Hann, on considerable areas near the mouth of the Roe River, and in a few other parts of the district.

According to Dr. House who accompanied the Brockman Expedition to Nor'West Kimberley the natives seem to "pound" everything in the nature of food. "In one camp an oven had been made by scooping out a place in the sand, heating it with a fire and then scraping out the ashes. Investigation showed it to contain a large quantity of

tubers from the root of the large water lily with which all the pools are covered. In only one camp did we find a kangaroo."

Helms, Eucla district.

To be amended

All the flesh food the blacks of this desert region secure is stated by Helms to be ^{very tasty if prepared in their own fashion, namely,} cooked in the hot sand under the embers of the fire, whether it is opossum, lizard, or egg, because it retains its flavour to perfection by broiling in its own juice. I have tasted all these things and found them delicious, particularly the iguanas. The fur of the animals is removed by plucking it out, and the entrails are abstracted through a small incision, that is stopped up with a little grass. When cooked and the skin peeled off, the flesh looks as inviting as any dish can. The lizards are cooked as they are caught, the skin peels easily off when they are done, and the entrails are conglobated."

Near the De Grey River Gregory surprised another encampment of natives, and took the opportunity of noting the "supper" prepared by them, which consisted of fish, rats, beans, grass-seed cake and a beverage made with some oily seed pounded.

Of the indigenous fruits near Nickol Bay eaten by the natives, Gregory records that he observed the Adansonia or gouty stemmed tree of Sir George Grey (nearly allied to the baobab or Monkey breadfruit of Southern Africa) sweet and water melons similar to those formerly seen by him on the Lyons River, but of much larger size; a small gourd; a wild fig, well tasted; and a sweet plum, very palatable.

Moore mentions the native custom of obtaining water from a species of the Eucalyptus, called by them "wando" which grows on some of the most arid tracts of ground. (Perth Gazette, 9/5/35) The "wando" is of a yellowish colour and has rusty tinge on its bark. It is not every tree that contains water. A slight mark of discoloration on the surface seems to indicate the concealed treasure. At this spot the tree is to be tapped, when a liberal jet of good water will frequently reward the search. On satisfying their wants, the natives close up the orifice, by hammering bark into the hole; thus reserving the superfluous store as a supply for future occasions.

Grey mentions that at Prince Regent River and the Glenelg the natives roast the fresh water mussels (unios) which are so abundant in those rivers. The unios are invariably eaten with either the nuts of the pandanus or another kind of tree which yielded pods, in which were several shells, each shell containing a kernel which tasted like filberts. Grey also found in this neighborhood three varieties of what he called the "grape-plant", all of which were creepers. "Two of them generally ran along the ground, or amongst low shrubs, and the third climbed high trees; this latter kind bore the finest fruit....Its fruit in size, appearance and flavour resembled a small black grape, but the stones were different, being larger and shaped like a coffee berry. All three produced their fruit in bunches, like the vine." (Grey's Journal, 211, vol. I.) (Marginal note : korraburra? natives gave me some of these nuts at Bunge duk, Beagle Bay.)

Wild honey is an enticing native food and is either eaten in its natural state or mixed with water and used as a drink. The Nor' West bees are stingless, and much smaller than the common house fly. It is therefore difficult to track them by sight and in order to secure this delectable article of food, the natives chooses a likely looking tree with one or two dead branches. Going down "on all fours" he crawls round, searching the ground for any dead bees that may have fallen from or been thrown out of, the nest. He very soon finds one rarely making a mistake in his choice of a tree, and a few strokes of his tomahawk discloses the "honey bags". (Wild bees not found in South)

At Valentine Island Stokes surprised a native camp, the occupants of which fled at his approach. He found "a bundle of the bark of the papyrus tree, in which were carefully packed a quantity of ground nuts, they were each about three-quarters of an inch long, and in shape not unlike a kidney potato." Wild oats was also found in the neighborhood of Valentine Island and the gouty stemmed tree whose fruit Stokes describes as resembling "a cocconut, with a gourd-like outside, of a brown and yellow colour. Its length was five inches and diameter three. The shell was exceedingly thin and when opened it was found to be full of seeds, embedded in a whitish pulp, and of a not ungrateful taste."

Mr. Withnell also describes the native method of curing flesh when the supply is greater than the appetite. They "cook the flesh, and after it becomes cold, part it into thin steaks or cutlets, and place them in the sun to dry, turning them regularly. The meat cures very well, although very hard and dry in appearance. To prepare this, they have to place it in the fire for a few minutes and then pound it between two stones, when it readily becomes as mincemeat. They never use salt or seasoning of any kind."

Steamed vegetable leaves are, according to Mr. Withnell, another variety of food of the Roebourne natives. He also mentions a weed which is mixed with ashes and a few drops of water and is used as tobacco. They chew the quid, swallowing the juice.

Fresh water turtles are cooked (according to Grey) by being baked shell and all in the hot ashes; when they are done, a single pull removes the bottom shell and the whole animal remains in the upper one which serves as a dish. They are generally very fat and are really delicate and delicious eating; the natives are extremely fond of them, and the turtle season is looked forward to by them as a very important period of the year.

On the upper Glenelg, Grey saw "a very neat oven or fire place... it consisted of a hole sunk eight inches deep in the earth, which was quite circular, three feet in diameter, and very neatly paved and lined with flat stones; the last article cooked here had been a large quantity of turtles' eggs, the remnants of which were lying scattered all around."

Wild oats grows extensively in the Nor' West and is one of its remarkable vegetable productions. It grows to the height of six or seven feet and in the stalk and shape and mode of insertion.....

J. Whitchurch states that the Busselton natives made a kangaroo trap which also served for emus and other animals. They called it "yongara koirup" (kangaroo hole). It was made by digging a hole in the ground four feet or more in depth, about four feet long, and 12 inches wide, V shaped at the bottom so that the animal got jammed before he could get a footing. This was covered over with sticks and leaves and a sprinkling of earth to deceive the animals. Their method of spearing the kangaroo was as follows: The native, by means of bushes made himself look like the stump of a tree, then while the kangaroo had his head down feeding, he quietly advanced, standing stock still when the animal raised his head to look round. The man continued this until he got close up when he threw his spear. Mr. Whitchurch has seen the natives get within three yards of their prey by this method.

The kangaroo traps made by the Pinjarra natives are thus described by Arthur Birch. The natives "dig a pit across a kangaroo run or race about 5 feet deep, 6 feet long and about 18 inches wide, the pit is made in stiff soil or clay to prevent the kangaroo from getting out."

Grey describes what is called "yudarn dookoon" or "tying up cooking". A piece of thick and tender paperbark is selected and torn into an oblong form; the fish is laid in this and the bark wrapt round it, as paper is folded round a cutlet; strings formed of grass are then wound tightly about the bark and fish, which is then slowly baked in heated sand, covered with hot ashes; when it is completed, the bark is opened, and serves as a dish; it is of course full of juice and gravy, not a drop of which has escaped. Several of the smaller sorts of fresh water fish, locally called nammat and deeda (Perth), in size and taste resembling white bait, are really delicious when cooked in this manner; they occasionally also dress pieces of kangaroo and other meats in the same way."

Cannibalism

Mr. Woodley confirms the statement that cannibalism was indulged in by the Murchison natives, which he states was only stopped through the police arresting on a charge of murder those who were found eating human flesh.

Mr. Charles Harper states that "amongst the Ngurla (mouth of De Grey River) tribe cannibalism exists to the extent of occasionally eating the fat of slain enemies. More frequently however, they roll up bits of it in bark, or other suitable material and tie them like buttons here and there to the ends of their beards."

Gregory during his expedition up the Gascoyne River in 1858 met with strong evidences of the cannibalism of the natives. "At a recently occupied encampment we found several of the bones of a full-grown native that had been cooked, the teeth marks on the edges of a blade bone bearing conclusive evidence as to the purpose to which it had been applied; some of the ribs were lying by the huts with a portion of meat still on them." (Journal of Australian Explorations 47)

The Rev. Dr. John Fraser, B.A. LL.D. is of opinion that the custom of cannibalism arose not from the pressure of necessity, but from quite another principle (Fraser's Aborigines, 56-7) "A native has the idea that the mental and moral, as well as the physical qualities of a man reside in his flesh or in his internal organs....Hence he imagines that by eating the heart or the liver of a brave or a wise man of his race, recently dead, he acquires something of the wisdom and bravery of the deceased....There is no evidence whatever, not even a suspicion, that our blacks ever offered sacrifices, but if, in the home of their origin, their first ancestors were in contact with a race that did so, the custom of eating the flesh may have been copied from that race without adopting the sacrifice."

Native sorcerers are supposed to acquire their magic powers by eating human flesh and it has also been the custom of the natives of W.A. to extract the kidney fat from a dead enemy and smear their bodies with it, sometimes roasting and eating

First paragraph to be deleted.

A native named Billiagoro told Bishop (then Father) Salvado of four families having once been reduced by famine to kill and eat a child, the narrator himself having taken part in the revolting meal....

The victim was Billiagoro's own sister and "had I been older, I would have defended her," he said, "but then the lot would have only been shifted to some other yet more unprotected child, for we were all dying of hunger and eat we must."

Following wants confirmation :

Dr. Salvado also found a practice obtaining amongst the natives of Victoria district of killing the third daughter at her birth, and he concluded that the origin of this custom was due to scarcity of the means of subsistence as from close observation of the natives he was convinced of the great affection of the mothers towards their children. It not infrequently happened that one of the relatives adopted the child rather than see it murdered. Dr. Salvado says that he was personally acquainted with more than one of these foster mothers and the children whose lives they had saved.

The following particulars concerning the food of the Yerkla Mining tribe were furnished to Mr. Howitt by H. Williams : Their food consists principally of wallaby and kangaroo, but they will eat snakes, iguanas, wild dogs, native cats, etc. but not some small varieties of lizards. All kinds of fish they will eat except shark. A berry they call ngura is much esteemed and furnishes a quantity of food, as also does the quandong or native peach, which grows very plentifully in their country. Another article of diet eaten by the Mining is the bark of a kind of mallee. It is prepared by baking in hot ashes and afterwards pounding between hot stones. They relish this pulp mixed with white ants, though the bark is often eaten unpounded, and is said to have a rather agreeable flavour.....

In this tribe food is always shared equally among all present. For instance, if a wallaby has been killed and there happen to be ten or twelve in the party, each one receives a share of the animal. No one touches the animal or part of it until given by the killer. Should the man who killed it be absent while it is being cooked, no one would touch it till he came to share it. Women share equally with the men, and children are carefully looked after by both parents. When a kangaroo was killed by a native servant of a white man, with the gun of the latter, none of the blacks present would touch it until the latter cut off portions of it and ordered them to eat it. (To be corrected) (Howitt's Native Tribes of S.E.A., 76 et seq.)

J.O. Brown states that the coastal natives (the Ngaloma tribe) live chiefly upon fish, prawns, crabs, crayfish, snakes, ants (particularly the white ant), various grubs, especially the bardies (called mockayer) which they obtain chiefly from the mangrove trees.

A party of natives spearing fish in one of their large shallow estuaries is, Grey states, an extremely picturesque sight; they follow all the tortuous windings of the fish they are pursuing, as it darts about in the water, with great rapidity; and the object of their pursuit being concealed from a distant spectator, they appear to be running about in the sea....Notwithstanding the speed they are running with, and the smallness of the object, in striking they rarely miss their aim.

In deep rivers or in the sea, the mode of spearing fish varies according to the circumstances of the case; sometimes it is done by diving, sometimes by sitting on a rock or tree, and watching them as they pass underneath, but in all cases astonishment is excited to see the celerity and accuracy with which the eye and hand act in the nicest unison."

(Mention Disaster Bay fishing)

Fish are often killed in shallow water with the kyley, the natives being very expert at this method. It is not however as satisfactory as spearing them, as the kyley almost invariably breaks the fish in two or three pieces.

(Near Willie Creek, north of Broome, this method was observed.)

Whether using the spear, the net, or the kyley, the aborigine is always a successful sportsman, much more so than the European, for he has a perfect command of his implements and his quickness of sight, sureness of aim and patience in waiting are always productive of good results.

Native weirs were used for catching fish long before the advent of the white man in Australia. Dampier came upon them on his first visit to West Australia, for he makes mention of them in his "Voyage" (Early Australian Voyages, 130-1), wherein he speaks of their fish diet. "By their fire-places we should always find great heaps of fish shells of several sorts, and it is probable that these poor creatures have lived chiefly on the shell fish, as those I before described did on small fish, which they caught in wires or holes in the sand at low water. These gathered their shellfish on the rocks at low water but had no wires (that we saw) whereby to get any other sorts of fish; as among the former I saw not any heaps of shells as here, though I know they also gathered some shellfish."

Vancouver in describing a rivulet (Vancouver's Voyage, I, 38-9) which he explored in the northern corner of Oyster Harbour states, "In it were an abundance of very fine fish, and on its banks were many black swans, ducks, curlews and other wild fowl. On the sides of this stream, as well as on the shores in Oyster Harbour, were seen the remains of several fish wears, about eight or nine inches high, evidently the sorry contrivance of the wretched inhabitants of the

country. Some of these were constructed with loose stones, others with sticks and stumps of wood, but none of them were likely to be of much utility at this season, as several were placed nearly at, and others above, what now seemed the high water mark; but we supposed at times, when the rain or other cause should extend the rivulet beyond its present bounds, which in width did not exceed thirty yards, and in depth four or five feet, these humble contrivances might arrest some small fish. Great bodies of water evidently passed down this stream at certain seasons, as appeared by the river's course occupying from two to three hundred yards on each side the rivulet, the soil of which was composed of sea sand and broken shells and was destitute of any vegetable production. This space when overflowed must, from its winding course, form a most beautiful sheet of water. The weirs for the taking fish, and steps made in the bark for the purpose of ascending some of the largest trees, though both excessively rude, were undoubtedly the effects of manual labour, and with the huts, formed the only indications of the country being inhabited, that we were able to discern."

Scott Nind mentions the methods of fishing pursued by the natives of King George's Sound. (Journal Geog. Soc, I, 32-3) "During the summer and autumn months, the natives derive a large proportion of their food from fish. They have no canoes, neither can they swim (?) They can, therefore, only catch those fish which approach the shores, or come into shoal water. They have neither nets, nor hook and line, and the only weapon they use is the spear, with which they are very dexterous. In the mouths of streams or rivers, they take large quantities, by weirs made of bushes, but the most common method is pursuing the fish into shoal water, and spearing them, or as they lie basking on the surface. During calms, they walk over the mud and sandbanks, in search of flat fish, which are easily detected while lying at the bottom. At night, too, they light torches of grass tree, and thus see the fish at the bottom, apparently asleep, when they very readily spear them. By these methods vast quantities are taken, but it can only be done in dead calms. Another common method is to sit on a rock, motionless, and occasionally throw into the water pieces of limpet, or other shell fish, keeping the spear under water until the bait is seized by a fish, when they

are almost certain of striking it. In the autumn, when the smaller species of fish approach the shore in large shoals, they surround them, and keep them in shallow water upon the flats until the tide falls and leaves them, when they are easily speared, and few escape. For this purpose they use a very small spear, without a barb, and throw it by hand; should it so happen that the tide does not sufficiently fall to enable them to take the fish, they gather bushes, and plant them round so thickly, as to enclose them, when they are speared at leisure."

At Barraghup, nine miles from Pinjarrah there are still the remains of a native weir which had been used for many years by the natives of the Murray and adjoining districts (of whom only 9 were living in 1901). A description of this weir and the methods practised by the natives in catching the fish has been given by Mr. C.A. Paterson of Perth. (Helms Anthropology, 289) "Formerly the natives used to go to a great deal of trouble to build extensive weirs to catch fish near Peel's Inlet. Here the Murray and Serpentine join; the first, coming from a northerly direction, is a confined water-course, but the Serpentine, coming from south-west, passes through a number of swamps and lake-like expansions. Particularly on the Serpentine they used to build these weirs, called mungo (monga) by them, where the water narrowed again after passing through the expansions. These mungos were very carefully constructed of long fine sticks of spearwood (a kind of ti-tree) laid at the bottom as smooth as a carpet and ending in narrow openings. Near these the blacks would watch, catching the fish as they were coming over the smooth sticks, and nick them at the back of the head with their teeth before flinging them on to the land. Or a net would be set at the end below the narrows. (the natives of the Southwest had no fishing nets, but a native wire grass, called ngoonjook supplied a good substitute.) Sometimes very large catches were made this way, particularly at the beginning of the winter, when, with the increased rains, the fish returned from the spawning places up stream. At this time the blacks would watch day and night for the fish to come, relieving each other. (To be corrected)

In the season when the fish were plentiful the natives from all

districts used to come to these places and have great feasts and corroborees and at the same time exchange weapons and implements, those from more inland bringing kailis (boomerangs) to exchange for the spears of the coast, the woods of the various districts being respectively more suitable for these weapons."

Kalda or mullet and meluk or salmon were fish usually taken by the aborigine at this weir. The openings in the weirs through which the fish have to pass are very narrow, seldom more than a few inches in width and about six feet in length. At either side of this narrow opening or "race" the river is filled in with thick brush wood and at each side of the passage the natives squat in a row, facing each other; their hands half opened and spread downwards and as the fish come through the opening the natives seldom fail to catch them. (Is this the ngoonjook?) White settlers in the early days used to buy these fish by the ton for the purpose of manure, and to supplement their "catch" the natives resorted to another method. They gathered large quantities of a creeper called ngoonjook, a "love-runner", and making this up into a large loose bunch, they waded into the water and splashed it to and fro amongst the fishes which were speedily entangled in its net-like meshes.

The stakes which formed the groundwork of the weirs were very ingeniously fascined with brushwood, whilst at the opening the fascines were so arranged as to form a gradual upward slope in order to bring the fish as close to the surface as possible and thus facilitate their capture.

These weirs were constructed both in fresh and salt water. In the former they were so placed as to take advantage of floods, or by making dams so as to obtain an increased artificial flow of water, and in the latter they were placed in the flats left nearly dry at low water. The weirs were generally from three to six feet in depth.

The Nor'West natives have discovered certain properties in a small plant, which when thrown into the water has the effect of stupifying the fish and causing them to rise to the surface in a torpid condition, when they can easily be collected.

The use of this native plant for stupifying fish is not confined to the Australians. In Fiji the natives use a plant possessing intoxicating properties which they throw into the fresh water pools and streams, the fish coming at once to the surface where they are easily caught, and in the Chittagong district of South-eastern India, according to Dr. Fraser (*Aborigines*, 57) the hill people do the same. They form a dam in a stream and put in it a certain kind of plant; by it the fish are stupified and float on the surface, belly upwards.

A method somewhat similar in its results, now illegal, used to be practised in England by poachers, chloride of lime being the agent employed.

Grey states that the natives are particularly fond of spearing fish at night during certain seasons of the year, in which case they go along the shoal water with a light and proceed exactly in the manner still practised in Scotland and Ireland. Great numbers of fish are caught at night being attracted by the glare of the torches, and Irwin states that in the vicinity of the rivers, fish have been found left in heaps by the natives, after they had used what they needed.

"A whale," says Grey, (*Grey's Journal II*, 277-8) "is the greatest delicacy that a native can partake of, and whilst standing beside the giant frame of one of these monsters of the deep, he can only be compared to a mouse standing before a large plum-cake; in either case the mass of the food compared to that of the consumer is enormous.....When a native proprietor of an estate in Australia finds a whale thrown ashore upon his property, his whole feelings undergo a sudden revulsion. Instead of being churlishly afraid of the slightest aggression on his property, his heart expands with benevolence, and he longs to see his friends about him; so he falls to work with his wives, and kindles large fires to give notice of the joyful event. This duty being performed, he rubs himself all over with the blubber, then anoints his favorite wives, and thus prepared,

cuts his way through the blubber into the flesh or beef, the grain of which is about as firm as a goose-quill; of this he selects the nicest morsels, and either broils them on the fire, or cooks them as kabobs, by cutting them into small pieces, and spitting them on a pointed stick. By and by other natives come gaily trooping in from all quarters; by night they dance and sing, and by day they eat and sleep; and for days this revelry continues unchecked, until at last they fairly eat their way into the whale, and you see them climbing in and about the stinking carcase, choosing tit-bits. In general the natives are very particular about not eating meat that is fly-blown or tainted, but when a whale is in question this nicety of appetite vanishes.....They remain by the carcass for many days, rubbed from head to foot with stinking blubber, gorged to repletion with putrid meat, out of temper from indigestion, and therefore engaged in constant frays, suffering from a cutaneous disorder by high feeding and altogether a disgusting spectacle. There is no sight in the world more revolting than to see a young and gracefully formed native girl stepping out of the carcass of a putrid whale." (The above to be corrected.)

There are two species of turtle and two also of tortoise which with their eggs afford a plentiful supply of food for the coastal natives; the sea turtle, the fresh water turtle, the fresh water tortoise, and the land tortoise; of these the hawksbill and leathery turtles and the long necked tortoise are the best known.

The turtles are usually surprised on the beach when they come to lay their eggs, but sometimes they are attacked in the water when they are asleep. The sharp edges of their shells renders extreme caution necessary, while catching the turtles, more particularly the females, the edges of their shells being particularly keen. With the advent of the white man's boat, turtle fishing is rendered comparatively easy to the native on the Nor'West coast, who rows out gently to where a large turtle lies sleeping on the surface of the sea; when within a short distance the native glides gently out of the boat, swims under the turtle and by a strong effort turns it on its back, at the same time wrenching the fore flipper, thus rendering the animal

powerless. He then attaches a string to it and tows it triumphantly to the shore. According to Grey the green turtle is seldom found south of Shark's Bay, but "fresh water turtles are extremely abundant and are in high season about December and January. At this time the natives assemble near the fresh water lakes...in large numbers. ...Among these the natives wade with stealthy pace, so stealthy that they even creep upon wild fowl and spear them. The habits of the turtle are to swim lazily along near the surface of the water, half immersed, biting and smelling at the various aquatic plants which they pass and turning their long ungainly necks in all directions. When alarmed by the approach of a native, the turtle instantly sinks to the bottom like a stone, and its pursuer putting out his foot, the toes of which he uses to seize anything, just as we do our fingers, gropes about with it in the weeds, until he feels the turtle, and then holding it to the ground, plunges his hands and arms in and seizes his prey."

There are many methods of catching fish, the three principal ones being netting, spearing and making weirs. The nets which have been previously described, are used in much the same way as the European method. They are manufactured from spinifex or rushes and are of great strength and durability. When casting them the natives buoy them up with bundles of dried grass or reeds, weighting them at the bottom with stones. The nets are set either by swimming or wading, or, as in some parts of the Nor'West, by the natives seating themselves astride their log canoes and placing the nets in some convenient position where a good result may be expected. Great numbers of fish of all kinds and sizes, turtles etc. are caught by this method, and as "all's fish that comes into the native's net", every species that is captured is eaten, with the exception of those that are restricted by certain local tribes such as the stingray, unio, oyster, etc. which are eaten in one portion of the State and rejected in another through some superstitions connected with them. Grey's native, Kaiber, although suffering extremely from hunger during the journey from Gantheaume Bay to Perth, refused to eat the unio or fresh water mussel.

which the party fortunately came upon in the course of their travels, Kaiber's reasons being that "a very long time ago some natives had eaten them and bad spirits had immediately killed them for so doing."

Other kinds of nets are used for catching fish which need no particular description, such as hoop nets for catching the smaller kinds of fish, shrimps etc.

Ngoonjook is the name given by the Southern natives to some fine interwoven wire grass which is used in its natural state as a net.

Eyre, II, 262

In the large rivers, when the waters are low and clear, a party of natives varying in numbers from five to forty, plunge in with their spears, which for the purpose are made of hard wood with smooth sharp points, and about six feet long. Forming themselves into a large semicircle in the water, they all dive down, simultaneously with their weapons, accompanied sometimes by a young man, a few yards in advance of the middle of the party, and without a spear. For a considerable time they remain under water, and then, if successful, gradually emerge, and deliver the fish that have been speared, to their friends on the shore. If unsuccessful they swim a few yards further down, and dive again with their weapons. And thus they frequently go on for a mile or two, until they are either tired or satisfied with their success.

The regularity with which the natives keep their relative positions notwithstanding the current of the river, and the dexterity and order with which they dive under the

Mr. F. Gregory when exploring the country round Roebourne, saw some natives capturing partridges (ground doves) by means of nets made from spinifex, the mesh of the nets varied from one inch to six inches according to the purpose for which it was required. To induce the birds to enter the nets or cages, they placed bushes round the waterholes or pools leaving open a space about five or six feet wide; from these openings they stuck in a double row of twigs, arching so as to meet overhead in the centre, 1 foot or 2 feet high from the ground. These arches led for several yards and terminated in a net thrown over a few light sticks at the end. The birds after drinking do not immediately take flight but run to the only opening under the arch of twigs and finally into the net, which is then drawn to by the hunter lying in wait for the purpose.

There are five species of opossum in W.A., all of which afford food for the natives, the black, common, western ring tailed, and lesser dormouse phalanger of the Southwest and the lesser flying opossum of the Nor'West. A small species of the common grey opossum is to be found in the neighborhood of Beagle and Disaster Bays.

The opossums are hunted either by day or during moonlight nights. They inhabit the hollows of trees, or sometimes the tops where they construct a nest for themselves with small boughs. Rockholes also form convenient camping places.

The W.A. natives have various methods of climbing trees after opossums. In the Southwest they climb up the tall karri and jarrah trees with the aid of their tomahawks, ^{only.} The wooden handle of this weapon is sharpened to a point and the native sticks the end into the bark after making a notch and drags himself up by it. The first notch being cut, the toe is placed in it, and while the left arm grasps the tree a second notch is cut at a convenient distance to receive the other foot. The natives climb in this manner with astonishing rapidity and rarely miss their hold.

Grey furnishes an excellent description of opossum hunting, which may be taken as the general mode amongst the W.A. natives of hunting these animals in the daytime.

"The savage carelessly walks up to some massive trunk which he thinks bears a suspicious appearance, his hands are placed thoughtlessly behind his back, whilst his dark eye glances over the bark; suddenly ...he looks eagerly at the tree for he has detected the holes made by the nails of an opossum, in its ascent; he now seeks for one of these footmarks which has a little sand attached to it, and gently blows the sand, but it sticks together, and does not easily move away - this is a proof that the animal has climbed the tree the same morning, for otherwise the sand would have been dried up by the heat of the sun, and not being held together by dampness, would have been readily swept away before his breath; having.....convinced himself that the opossum is in some hole of the tree, the native pulls his hatchet from his girdle and cutting a small notch in the bark, about four feet from the ground, he places the great toe of his right foot in it, throws his right arm round the tree and with his left hand sticks the point handle of the hatchet into the bark, as high up as he can reach, and thus forms a stay to drag himself up with; having made good this step, he cuts another for his left foot, and thus proceeds until he has ascended to the hole where the opossum is hid, which is then compelled by smoke, or by being poked out, to quit its hiding place, when the native catching hold of its tail, dashes it down on the ground and quietly descends after it. As the opossums give a very severe and painful bite, the natives are careful to lay hold of it in such a manner as to run the least possible danger of being seized by its teeth."

Opossum hunting by moonlight is often indulged in by the natives.

The animal is then feeding on the branches of the eucalyptus and other favorite trees. Its form is fully outlined in the strong Australian moonlight. The native quickly climbs the tree and forces the opossum to retreat to the very end of some branch whence he is shaken off or knocked down with a stick.

Many of the trees have holes in their trunks or branches which furnish convenient nests for the opossums. When the native climbs one of these trees, in order to ascertain in which particular hole the opossum is, he drops in a pebble or a piece of bark or stick, and then applying his ear to the outside, listens for the rustling motion made by the animal in shifting its position on account of the disturbance

If the hole is not very deep the native puts in his hand and draws the opossum out by the tail, striking its head violently against the tree to prevent its biting him. If the hole is deep, the furthest point to which the animal can recede is ascertained and an opening made near it with the tomahawk. Should the whole trunk be hollow a fire is made in some lower opening, which soon drives the game out.

Eyre states (Eyre 's Disc. II, 281) that the native dog is often used in scenting the opossums along the ground where they sometimes feed, and in guiding the native to the tree they have ascended when alarmed at his approach. They are then either knocked down with sticks or the tree is ascended as before described.

round a thick bush; they thus not only destroy the runs of the animals but form with the fallen bushes a place which entangles and

embarrasses them. When these preparations have been made, the natives fire the bush and the

frightened animals, finding their runs stopped up, rush into the fallen branches, where every jump involves them in greater difficulties so that they fall an easy prey to their pursuers.

In netting the wallabies a party of seven or eight men go in advance each with a net of from twenty to forty feet long (?) and when they arrive near the runs of these animals, a favorable spot is selected and the nets generally set in a line and nearly together, each native concealing himself near his own net. The women and children who had in the meantime been making a considerable circuit, now begin to beat amongst the bushes with the wind, shouting and driving the wallabies before them towards the nets, where they are caught and killed. Other species of wallaby burrow in the ground and are dug out. The large rock wallabies are speared by the natives creeping upon them stealthily among the rugged rocks which they frequent.

Some of the smaller animals, such as the dal-gyte, an animal somewhat larger than a weasel, burrow in the earth; these the natives surprise when they are feeding, or dig them from their burrows.

They are all cooked by having their fur singed off, and being roasted on the fire.

Brough Smyth states (Aborigines, II, 248) that at King George's Sound a great quantity of whiting was caught in the following manner :- "Two or three women watch the shoal from the beach, keeping opposite to it, while twenty or thirty men and women take boughs and form a semicircle out in the shallow bay as far as they can go without swimming and then, closing gradually in, they hedge the fish up in a small space close to the shore, while a few others go in and throw them out with their hands. By this primitive method, skilfully executed, I have seen a large quantity of fish caught. At Swan River, I have watched them drive a shoal of large schnappers into water too shallow for them to swim in, and spear and catch a great number of fish weighing from ten to fifteen pounds each."

Grey mentions (Journal, II, 274) two modes of cooking the kangaroo which are common : the first is to make an oven by digging a hole in the sand in which a fire is lighted; when the sand is well heated and a large heap of ashes is collected, the hole is scraped out, and the kangaroo is placed in it, skin and all; it is then covered with ashes and a slow fire is kept up above it; when sufficiently baked, it is taken out and laid upon its back; the first incision is made directly down from between the forearms to the bottom of the abdomen, the intestines are then removed, and the whole of the juice or gravy is left in the body of the animal, this is carefully taken out and the body is then cut up and eaten. Another mode is simply to kill the kangaroo and then to broil the different portions of it on the fire; certain parts are considered great delicacies, and these the young men are forbidden to eat; such are the blood, the entrails and the marrow.

Sometimes the natives will merely throw the kangaroo just as it is brought in, on top of the fire, the outside only receiving any cooking by this process as in a short time it gets scorched while the inner flesh is scarcely heated through. This method is only used in cases of severe hunger.

Eyre states that a variety of forms are observed by the natives in preparing their food for cooking. In the preparation of the kangaroo, the bones of the legs are invariably broken and the fur is singed off; a small aperture is made in the belly, the entrails withdrawn and the hole closed with a wooden skewer, to keep in the gravy whilst roasting. The entrails are made use of, and are frequently eaten whilst the animal itself is being prepared.

Eyre, II, 289, 291 The culinary operations of the natives, who are unacquainted with the simple process of boiling, are confined to broiling on the hot coals, baking in hot ashes and roasting, or steaming in ovens.

"The native oven is made by digging a circular hole in the ground, of a size corresponding to the quantity of food to be cooked. It is then lined with stones in the bottom and a strong fire made over them, so as to heat them thoroughly and dry the hole. As soon as the stones are judged to be sufficiently hot, the fire is removed, and a few of the stones taken and put inside the animal to be roasted, if it be a large one. A few leaves, or a handful of grass, are then sprinkled over the stones in the bottom of the oven, on which the animal is deposited, generally whole, with hot stones, which had been kept for that purpose, laid upon the top of it. It is covered with grass or leaves, and then thickly coated over with earth, which effectually prevents the heat from escaping. Bark is sometimes used to cover the meat, instead of grass or leaves." Native ovens of this description are in use by the natives all over the State.

A method of catching fish, practised by the natives on the Gascoyne River, and observed by Mr. Kenneth Young of Weena river station, Gascoyne, is similar to the foregoing statement by Mrs. Joshua Mills. "A floating platform, made of large sheets of paperbark, is constructed at one end of the pool, which is to be dragged. This platform is about 5 ft. long, by 3 ft. wide, hollowed like a dish, with a "back" to it about 3 ft. high. To each end of the platform is fastened a rope 10 or 12 ft. in length, formed of the long trailing branches of the cajebut tree, bound together with strips of the inner fibrous bark, or rushes. These ropes are from 9 inches to 1 foot in diameter,

tapering towards the end. A thick screen or curtain of branches of cajebut is fastened to the under side of the rope, so as to hail down and block the fish from swimming underneath.

Then all hands join in dragging this contrivance from one end of the pool to the other, thus driving all the fish before it. When the fish get into the shallow water, the natives keep up a great splashing along the ropes, thus causing the fish to try and leap back over the platform, in the only place where the water is undisturbed. They strike the back of the platform and fall into the dish-shaped body of it, where they are disabled by a blow from a stick!!

Mrs. Millett (An Australian Parsonage, p. 170) speaks of the "dolghite", an animal resembling the rabbit which was eaten by the York natives, and describes it as of a pretty grey color, the fur rather long and extremely soft and silky, the tail somewhat shorter than a cat's. "The strangest looking part of him," says Mrs. Millett, "were his hind legs, which very much resembled those of a fowl, and made him appear as if he was an intermediate cousin of both birds and beasts. He came of a family that is given to burrowing." The only other species of native foods mentioned by Mrs. Millett are the native cherry (quandong?), zamia nuts, a native root (probably warran), a plant with a glutinous leaf - a species of mesembryanthemum, which was sometimes made into puddings by the white settlers.

"A certain mysterious connection," Grey says, "exists between a family and its kobong so that a member of the family will never kill an animal of the species, to which his kobong belongs, should he find it asleep; indeed he always kills it reluctantly and never without affording it a chance to escape. This arises from the family belief that some one individual of the species is their nearest friend, to kill whom would be a great crime. Similarly, a native who has a vegetable for his kobong, may not gather it under certain circumstances, and at a particular period of the year." (Marginal note : Incorrect - a kobong or babbin is not an animal but a man or woman friend.)

The North American Indians also take some animal as their sign or crest. Charlevoix, vol. III, 266, states that "each tribe has the name of some animal. Among the Herrons the first tribe is that of the bear; the two others of the wolf and turtle. The Iroquois nation has the same divisions...." In the Sioux tribe "each... derives its name from some animal, part of an animal or other substance, which is considered the peculiar sacred object...of each band respectively." John Long in his "Voyages and Travels" (P. 86) says "one part of the religious superstition of the savages consists in each of them having his totam or favorite spirit, which he believes watches over him. This totam they conceive assumes the shape of some beast or other and therefore they never kill, hunt or eat the animal whose form they think the totam bears." In the crests and coats of arms of so-called civilised nations traces of the same custom are still preserved.

Scott Nind makes mention of many kinds and varieties of food eaten by the King George's Sound natives, (Journal Geog. Soc. P. 28 et seq.) yet notwithstanding an extensive enumeration of the various species he is of opinion that the native food is "poor in quality, often scanty and therefore compelling the natives to a vagrant life." Lizards (2 species), snakes (several kinds), bandicoots, many kinds of kangaroo, opossums (2 species), emus, wild dogs, eggs and young of birds, parrots, hawks, ducks, swans, pigeons etc., vampire bats, fish (many kinds), oysters (?), whales, seals, crayfish, fresh water mussel, tortoise, frogs (2 or 3 species), grubs (several kinds), ants' eggs - these are the animal products.

The kwonnat or gum of the mimosa, before referred to, is thus alluded to by Sturt, who found at a native camp "a number of bark troughs filled with the gum of the mimosa, and vast quantities of gum made into cakes upon the ground. From this it would appear that these unfortunate creatures were reduced to the last extremity, and being unable to procure any other nourishment had been obliged to collect this mucilaginous food." (Grey's Journal vol. II, 260) The mistake that a traveller of such great ability as Sturt made over this custom of the natives renders palpable the errors into which so many have fallen with regard to the customs and habits of the aborigines in their wild state. The gum mentioned by Sturt is an article of food highly prized by the aborigines and when it is in season they assemble in large numbers on the plains where it grows in order to enjoy what is to them a great luxury.

Dr. Wilson during his stay at the "Swan River Settlement" made a short excursion to the Darling Range and having met some natives, one of their number presented him with what he called "loathsome looking grubs" from a grass tree as a mark of friendship, which however the doctor refused to accept. Since that time many white people have eaten those grubs or "bardies" and found them very palatable.

According to Dr. Wilson (Wilson's Voyages, 283) the food of the Perth and coastal natives "consists of fish which they spear in shallow places....They also derive sustenance from kangaroos, iguanas, and in the proper season, from young parrots, eggs, etc. and they seem to be fond of sucking the cones of various kinds of banksia, probably for the honey contained therein.

Captain Irwin, Acting Governor of W.A. in 1835, furnishes an interesting account of the food of the natives. (Irwin's "W.A. 1835, 22 et seq.) "Their food is of various kinds and as the season arrives for each, they remove to that part of the country most favorable for obtaining it. At one season they live principally on kangaroo. This animal (of which there are several species) they kill with spears, and occasionally hunt with dogs....The natives also eat the opossum...At the fishing season they resort to the vicinity of rivers and lakes.

They also live on the tortoise and land crab, and eat grubs.... The principal root they use is the eringo or wild parsnip (warryn?) which grows to the depth of three or four feet in loam and other strong soils. Certain nuts of the zamia palm of a bitter quality they convert into food by previous rubbing over with clay, and baking in hot ashes. In the proper season they get honey from the blossoms of the banksia tree. As to their mode of cooking fish," continues Captain Irwin, "the author has partaken of a specimen of it, that would have been no disgrace to a Parisian cook. It was a flat fish, which, after being washed and prepared, was wrapped in soft bark and placed in hot ashes until dressed. By this process, an acid from the bark was communicated to the fish, imparting to it so agreeable a flavour, that it required the addition of no other sauce."

The following is an extract from "Papers relative to the Colony of West Australia" (P.O. Pamphlet No. 1, Folio Series, 15th October, 1837) :-

Indigenous Food In this part of New Holland the food of the natives embraces a great variety of articles. In the estuaries and rivers and on the coast there is abundance of fish at certain periods of the year, and kangaroo of various sorts, together with opossums, dalgerts, and other small animals, are obtained in considerable numbers; roots and gums of several kinds are also used by them, and birds' eggs, lizards, frogs, grubs and crayfish from the swamps, are resorted to as varieties, or used in cases of urgent want. They do not appear to be reduced at any time to very great difficulties in procuring subsistence, but their habits preclude the possibility of keeping any accumulated stock of the necessary articles and therefore their time and attention are almost constantly occupied in the pursuit of their daily food. As they have no fixed habitation and do not practice any art tending to increase the supply which nature has provided, it is probable their numbers are strictly limited by this circumstance and that they have been long stationary at their present amount. The law which thus forbids any further increase is the cause moreover of their dispersion throughout the territory and prevents them from entering into any larger confederacies than those which are necessary for rendering most successful

their hunting and fishing occupations."

Mr. Nathaniel Ogle F.G.S. (Ogle, Colony of West Australia, P. 63, 1839) speaks thus of the food of the natives :

They vary their food in accordance with the season; sometimes frequenting the estuaries for fish, at other times eating the flesh of the different species of kangaroo, which they spear or hunt with well trained native dogs. The opossum, bandicoot, dalgert (an animal about the size of a weasel which burrows in the earth) and other small animals; roots, chiefly an oxalis, very nutritious, resembling the carrot and tasting like a cocoanut - the women usually procure it by throwing a heavy pointed stick into the ground to the depth of about eight inches and then turning up the soil and the root together, it is found in abundance and known by its leaf - birds and their eggs, reptiles, grubs, lizards, the larvae of the white ant, crayfish and other creatures, are eaten by them, and sometimes they set on fire the dry grass to capture the snakes and reptiles for immediate sustenance."

Grey is the most voluminous writer on the subject of W.A. native foods and the most authentic, as the manners and methods of the natives in obtaining and preparing their food which he so faithfully recorded in 1836, obtain at the present day. (Grey's Journal, vol. II, 261 et seq.) He observed so minutely the various kinds of game, roots and other foods eaten by the natives as to define the latitude within which many of them were only to be found. He places

Grey is on record a list of these various species of foods sufficient to show that the native is by no means the pitiable creature he has been represented to be.

"There are," he states, "two periods of the year, when they (the natives) are at times subjected to the pangs of hunger; these are, in the hottest time of summer and in the height of the rainy season. At the former period the heat renders them so excessively indolent that, until forced by want they will not move, and at the latter, they suffer so severely from the cold and rain, that I have known them to remain for two successive days at their huts without quitting the fire...In all ordinary seasons, however, they can obtain, in two or three hours, a sufficient supply of food for the day."

"Generally speaking the natives live well; in some districts there may at particular seasons of the year be a deficiency of food, but if such is the case, these tracts are at those times, deserted. It is, however, utterly impossible for a traveller or even for a strange native to judge whether a district affords an abundance of food, or the contrary; for in traversing extensive parts of Australia, I have found the sorts of food vary from latitude to latitude, so that the vegetable productions used by the aborigines in one are totally different to those in another; if, therefore, a stranger has no one to point out to him the vegetable productions, the soil beneath his feet may teem with food, whilst he starves.

The same rule holds good with regard to animal productions; for example, in the southern parts of the continent the Xanthorrhoea affords an inexhaustible supply of fragrant grubs, which an epicure would delight in, when once he has so far conquered his prejudices as to taste them; whilst in proceeding to the northward, these trees decline in health and growth. until about the parallel of Gantheaume Bay they totally disappear, and even a native finds himself cut off from his ordinary supplies of insects; the same circumstances taking place with regard to the roots and other kinds of food at the same time, the traveller necessarily finds.....