Wild Nature Play
Researching OOSH in the Bush

April 2015
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A Day in the Life of OOSH in the Bush
“I love nature”
“What about the bugs?”
“My favourite part of nature is all the space you get to play in”
“It's a happy feeling where you just get to be yourself”
1. Executive Summary

Project Overview

OOSH in the Bush is a wild free play project that is seeking to address a pressing issue for Australian children in contemporary society: What will be the impact on children if there is a continued decrease in their opportunity to engage in free or ‘wild’ nature play? The research conducted and reported on in this report sought to evaluate the potential of OOSH in the Bush in making a contribution to addressing this issue. The research was conducted by a research team from the Centre for Educational Research (CER) at the University of Western Sydney (UWS). The key role of the UWS researchers was to document the first intake of the OOSH in the Bush program in order to understand its impact and effectiveness. The OOSH in the Bush program has been designed and implemented by Centennial Parkland educators in order to support children and staff from Out of School Hours (OOSH) care centres to participate in wild nature play activities. This pilot program was implemented at two sites: Centennial Parklands in the inner city of Sydney and Mt Annan Botanical Gardens in the outer suburban region of NSW. The pilot involved 10 OOSH services over a six month period in late 2014 and early 2015 and provided 10 hours of nature play activity to approximately 260 children (20 from each service). Additionally, OOSH in the Bush provided training in nature play to OOSH staff by using webinars, workshops, guided learning, on site participation and supplying access to a variety of rich resources.

UWS researchers documented preparation meetings held with Centennial Park Rangers, conducted interviews with the OOSH in the Bush Leader, and prior to the program implementation attended one of the two training sessions held with OOSH staff. Of the 260 children who attended the OOSH in the Bush program at Centennial Park, 64 children and 16 staff from two OOSH services participated in the research. Of those two researched, one service attended with children for two full days during the school holiday break and the other service attended with children during the school term one afternoon session per 90 minutes per week over a seven week period. The UWS research team designed an evaluative procedure using a variety of place-based research methods including: photographs and videos of children engaged in wild nature play; field observations and interviews with children and staff; and behavioural mapping of the area. In addition to the place-based fieldwork, a pre and post of both the Connection Nature Index (CNI) and New Ecological Paradigm (NEP) scale were administered to children and OOSH staff with a small number of reflective questions and comments derived specifically about the program experience included at the end of the fieldwork. Drawing on this data, the role of this report was to provide feedback to staff and managers about the strengths and challenges of the program and its potential to be used in a variety of OOSH centres and settings. For our analysis the researchers devised a number of key themes: engagement/disengagement; freedom/order; deep learning/shallow learning; and core/periphery. The following boxes contain first the summary of key outcomes achieved by the OOSH in the Bush program at the Centennial Park setting and second, a list of the benefits a wild nature play like OOSH in the Bush could have for children in OOSH services.
Summary of Key OOSH in the Bush Program Outcomes

1. Create a significant and meaningful connection between children from OOSH centre with a ‘wild place’ inspiring confidence, curiosity and a sense of care for the animals and plants within it.

OOSH in the Bush at the Centennial Park space provides a very unique wild place for children to experience new things. Researchers saw evidence of children exhibiting confidence and curiosity to engage and explore plants and animals. Many of these aspects of the wild place could be modified to also provide meaningful connections in a planned and resourced OOSH centre.

2. Overcome ‘nature deprivation’ by re-engaging children, through play-based experiences, with the outdoors, animals, plants, weather.

Due to the abundance of natural materials and being in a space devoted to and supportive of free play, children in a natural free play program such as OOSH in the Bush have the opportunity to be engaged with the outdoors, animals, plants and the weather and have the potential to be impacted by this. As a phenomena nature deprivation is a complex set of ideas around children’s relationship to nature and is not one that can be easily measured. Therefore, research over a length of time would need to be conducted to prove what impact this program had on children’s changing natured lives.

3. Exploration and observation of changing natural environments to create increased environmental awareness, empathy and action, ultimately encouraging future environmental stewardship.

Growth towards environmental stewardship can be obtained through regular encounters with responsive affordances in a rich natural environment. Children during their short time in the OOSH in the Bush program showed signs of moving towards a growing competence and knowledge of their environment. This competence has the potential to lead to feelings of environmental stewardship.

4. Support OOSH centres to implement the new outdoor play and sustainability requirements of the My Time, Our Place curriculum framework

Continued support to OOSH staff so they can see even more the potential connections between their centre needs and the OOSH in the Bush program should be an on-going priority. The program showed evidence of supporting activities that would make a valuable contribution to meeting the requirements of the My Time Our Place.

Wild Nature Play in OOSH services

- Wild nature play could provide a space for children to engage with the natural world and allow them to build relations in authentic ways through self directed encounters with humans and the more-than-human world.
- Wild nature play could provide new opportunities for children to be exposed to the many health and wellbeing benefits associated with being in nature and offers, especially by creating a play environment to share with other children and adults, using their bodies and interacting with each other.
- Wild nature could extend children’s creativity and imagination by natural resources being a source of awe and wonder by inspiring and challenging their curiosity.
- Wild nature play could build children’s environmental knowing and stewardship by allowing them to make decisions about how they come to understand their relationship with the natural world and how they might become active and informed citizens in the future.
- Wild nature play could provide the unique opportunity for children to take measured risks and learn from that risk taking so they are able to move around the environment as confident and successful risk assessors.
2. Why wild nature play?

“... play spaces have to be places where children can dawdle and daydream and also be motivated to shriek and run about! They are places for children to make contact with nature, with peers and with the community, places to take on risks and face challenges but also to maintain a sense of equilibrium.” (Casey 2007, p. 10)

Natural environments are important places for children to engage in free play, to relax and unwind from their contemporary, technologically-saturated lives. Free play is, “freely chosen, personally self-directed, intrinsic behaviour that is actively engaged in by the child. Free play for children in a specific ‘place’ provides a significant opportunity for them to explore, engage and observe how humans and the non human world interacts within and through places” (Malone, Dimoulas, Truong & Ward et. al, 2014: 5). Researchers have argued that “children’s relationship with nature is a fundamental part of their development, allowing opportunities for self-discovery and natural environmental experience” (Bragg, Wood, Barton & Pretty 2013: 10). These settings also support children’s intellectual, spiritual, social, emotional and physical wellbeing and connection (Kahn & Kellert 2002). Research has also shown that free play in wild nature settings fosters imagination and enriches creative play (Louv, 2008).

According to research, time set aside for free play has been markedly reduced for children over the last few decades (Burdette & Whitaker 2005; Muñoz 2008). For children living in urban environments, such as those in our study, experiences of playing in natural outdoor environments has been limited by the absence of green spaces close to their homes, busy activity filled lives, shorter and more structured play time at school and fears about children’s safety in broader society (Malone 2007). In response to limits on children’s freedom to play, a growing body of literature illustrates the positive impact of free play in nature for children (Wells & Evans 2003; Davis, Rea & Waite 2006; Bragg, et al. 2013). Tim Gill, after conducting an extensive review of evidence-based literature on the positive benefits of natural environments for children, identified six supported claims.

<table>
<thead>
<tr>
<th>Claims Supported in Children In Nature Literature</th>
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<tr>
<td>1. Spending time in natural environments as a child is associated with adult pro-environment attitudes and feelings of being connected with the natural world, and is also associated with a stronger sense of place.</td>
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<tr>
<td>2. Living near to green spaces is associated with greater physical activity.</td>
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<td>3. Spending time in nearby nature leads to improvements in mental health and emotional regulation, both for specific groups of children (such as those with ADHD) and for children as a whole.</td>
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<tr>
<td>4. Children who take part in school gardening projects improve in scientific learning more than those who do not, and have healthier eating habits.</td>
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<tr>
<td>5. Experience of green environments is associated with greater environmental knowledge.</td>
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<tr>
<td>6. Play in natural environments leads to improvements in motor fitness for pre-school children.</td>
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Children are playing less, which has associated developmental consequences. At the same time, previous research with children in Sydney found a strong desire for more play opportunities, particularly free play in nature: “there was an imperative to encourage exploratory and natural free play through the use of malleable materials and imaginative play elements” (Malone et. al. 2014: 44).

Free nature play or ‘wild nature play’ isn't just ‘indoor structured play’ transferred outdoors, but rather it is informed by a philosophy that supports children making choices about how they engage with other animals and natural materials without direction or structure imposed by adults. Wild nature play has at its essence an openness; a freedom that is not often found in children’s structured or adult directed play. Wild nature play as free play provides a number of benefits beyond the value of the child just *being in nature*. Wild nature play
provides an opportunity for children to challenge themselves to master risks and overcome barriers and to extend their play repertoire. In wild nature play, children engage in activities such as climbing trees; using and manipulating logs, sticks, rocks, grasses and other materials to create huts, shelters, sculptures, games, or stories; and feeling the wind, rain and sun, hands in the earth, face painting with mud. An important element of free play in wild nature settings is that it affords opportunities for children to have ad hoc encounters with other species — bugs, insects, moths, fish, frogs, bats, and birds — providing moments where children must decide on their emotional responses - care, empathy, fear, destruction, violence.

Wild nature play demands a space that is flexible, malleable, diverse, and hidden, and it inspires children to participate with a sense of abandonment, curiosity, awe and wonder. Children can move between play activities and spaces freely, from construction to imaginative play, in social or individual spaces. At all times, however, children, not adults, determine and negotiate the choices of materials and their play companions. This openness is vital as “young children don’t learn by having someone telling them about the world around them. They learn and construct meaning through their own physical and mental activities” (Wilson, 2008: 35). Adults who desire to support wild nature play must be available but not intervene unless there are possible dangers or they are invited to do so by the child. Adults should also show a desire to learn themselves and be interested in knowing and sharing their own meanings: “It is the teacher’s enthusiasm and interest in nature - more than his or her scientific knowledge about the natural world – that will have the greatest impact on arousing children’s curiosity and engagement” (Wilson, 2008, 62).

What is the unique nature of the OOSH in the Bush program?
The aims of the OOSH in the Bush program, according to the information sheet for OOSH centres:

1. Create a significant and meaningful connection between children from OOSH centre with a ‘wild place’ inspiring confidence, curiosity and a sense of care for the animals and plants within it.
2. Overcome ‘nature deprivation’ by re-engaging children, through play-based experiences, with the outdoors, animals, plants, weather.
3. Exploration and observation of changing natural environments to create increased environmental awareness, empathy and action, ultimately encouraging future environmental stewardship.
4. Support OOSH centres to implement the new outdoor play and sustainability requirements of the My Time, Our Place curriculum framework

The capacity to support children through nature play activities is not commonly available in OOSH programs normally conducted in the hard surfaces and structured environment of school grounds and buildings. The space where the program is run at Centennial Park includes both a ‘wild play space’ where nature has been left to grow unmanaged, wetlands areas and manicured or contained spaces where varying degrees of maintenance occurs. One OOSH educator describes how the physical attributes of the space affect the way children can play: “That children can run wild, climb trees and more - many things services do not allow anymore”.

How does OOSH in the Bush contribute to OOSH curriculum?
According to OOSH in the Bush materials, one aim of the project is to: “support OOSH centres to implement the new outdoor play and sustainability requirements of the My Time, Our Place curriculum framework.” The OOSH in the Bush program aimed to offer activities addressing elements of the following key outcomes:

- Outcome 1: Children have a strong sense of identity
- Outcome 2: Children are connected with an contribute to our world
- Outcome 3: Children have a strong sense of wellbeing
- Outcome 4: Children are confident and involved learners
- Outcome 5: Children are effective communicators

The potential for OOSH in the Bush to contribute to these outcomes will be discussed throughout the report.
3. Researching *OOSH in the Bush*

What did we do and what data was produced?

The project used a place-based research methodology where children and adults engaged in a number of written, visual, oral, and mobile place based activities. A combination of qualitative and quantitative research techniques were employed. The qualitative data came from engagement in the field with children and educators and the documentation of meetings and training workshops. The quantitative data was derived from a small sample of results from an online survey given as pre- and post-tests by children and educators.

**Overview of Quantitative Methods**

The evaluation team conducted the following quantitative data collection activities with children and educators either at the site of the OOSH program outside of the field work or back at the children’s OOSH centre. The CNI (Cheng & Monroe, 2010) was administered verbally to children and OOSH educators using an online survey format filled in by the researcher. OOSH educators also completed a New Ecological Paradigm Scale survey (Dunlap et. al 2000) (both surveys are in the appendix). For the post survey, additional questions specifically about the experience of children and adults in the program were added as question/answer as well as extended comment sections. The pre- and post- surveys were completed by 55 children, aged 5-11 years old from OOSH centres at Kensington and Glebe Primary school; 54% were boys and 46% girls. The pre- and post- surveys were completed online by ten educators from a variety of the centres involved in OOSH.

**List of Quantitative Methods**

1. Pre and Post CNI Survey Children
2. Pre and Post CNI and NEP Survey OOSH Educators.
3. Survey questions and comments specific to *OOSH in Bush* experience - Children and Educators.

**Overview of Qualitative Methods**

The methods included participating in place based video interviews, photography, Go Pro videoing with cameras attached to children’s bodies as they played, place based observations and roaming range maps. Context based data is central to a place-based methodology. Additional to working in the field during the children’s play events, researchers attended and documented meetings with the OSSH in the Bush leader, one training workshop with Centennial Park Rangers, a training workshop with OOSH centre educators on site (Rangers were also present) and a reflective meeting with the OOSH leader after the fieldwork activities.

**List of Qualitative methods**

1. Interviews with Educator video taped in the field and at meetings and training day
2. Play and social behaviour observations documented in researchers journal
3. Photographs of play and social behaviours in the field
4. Groups discussions with Children video taped in the field
5. Behaviour mapping – tracking one child in space & observations
Ethics and Confidentiality
Children’s confidentiality was respected throughout the data collection and while their parents have all consented to their child’s images being used in the research reporting, we have tried to minimise individual text with images and or real names. Children were explained the requirements of the research and, when appropriate, children were repeatedly asked for personal consent during site visits to ensure they were always comfortable with the recording of their play behaviours.

Role of Researchers
Although the UWS researchers were engaged as external evaluators of the program, the dynamic nature of the fieldwork activities and social interaction during research can affect the research outcomes and the data. In intimate, face-to-face research, where researchers are bonded by the uniqueness of the ‘place’ and the ‘activities’ with the participants, researchers are always implicated; there is no place for truly independent observation. Throughout the fieldwork there were times when researchers stepped into the role of the educator and responded to children’s questions, requests for support and when children’s safety were at stake.

4. Experiencing OOSH in the Bush
How children and adults experienced OOSH in the Bush is represented through the layers of data produced during the researcher’s time in the field. From our analysis a number of key themes were devised. From the researchers’ perspectives the report has sought to document the multiple overlaps and complexities in the way meaning can be constructed or discussed. To tease out these complexities we have sought to not create a linear or flat analysis but to interpret and represent data in as full a range of intricacies as possible.

Engagement/Disengagement
Engagement or disengagement is a continuum. Children were seen to fluctuate between the two extremes in any given session. At times, children could be seen fully engaged in their own play world, totally immersed in their activities. Then, quite dramatically, the atmosphere could alter. These shifts might be initiated from a variety of circumstances: a disruptive child, a loss of interest, lack of materials or a desire to be alone. The role of the adults at this juncture was vital as they needed to be alert to respond.

Engaging choice
Children were engaged singularly or in groups; with or without an educator. In the wild play space there were a range of activities observed by researchers when children were engaged including: tree climbing, shelter building, face painting storytelling, drawing on rocks, catching live creatures, craft (weaving), imaginative play, swinging on a rope, jumping, running, balancing on tree trunks, climbing trees, making indigenous body paint, visiting the bat colony, dipnetting, or exploring wetlands. Children having fun, enjoying themselves, absorbed in a task, asking questions, being curious and applying experiences from previous activities; all these could be understood as contributing to MYOP outcomes: Outcome 1: Children have
a strong sense of identity; Outcome 3: Children have a strong sense of wellbeing; Outcome 4: Children are confident and involved learners and Outcome 5: Children are effective communicators.

Withdrawal from activities or time out as a solitary pursuit from the group processes, were also considered as productive engagement. For example, in many cases children took time out to be alone or to enjoy the shelter they had created. Some children, when in the wild space, showed they liked to withdraw from the group and watch or feel others without being involved in all aspects of the shared free play activities. The idea of ‘free play’ meant the space provided for the OOSH program was set up to allow this freedom of choice of individualisation as well as group activity, and moving between both. Children being given the ability and freedom to make choices to move around was viewed as essential and fundamental to the wild free play experience. The free play environment seemed to amplify children’s independence, autonomy, inter-dependence and resilience which contributes to MTOP Outcome 1: Children have a strong sense of identity.

Example: New forms of cooperation and social interaction

By now (back at school) I would have been the mediator for a million different things: like kids fighting, falling over and hurting themselves, not sharing their equipment … but here, it all runs so smoothly. There hasn't been any fights or squabbles … they never say they are bored, … they’re relaxed and happy. It is great” - OOSH Educator

“One of the amazing things about last week was that we had no issues with the kids. Generally everyday like there is something, an argument or someone does this and we are having to mediate these relationships. But last week there was none of that; they consumed what they were doing, they had no time to be mean to one another” - OOSH Educator
Risky behaviour
Disengagement of children raises a number of issues around risk, safety and duty of care. The potential for diverting behaviours through intervention, a strategy most often used by the Rangers when children were looking a little lost or disconnected, was not as effective once children’s behaviour had escalated. Thus, Rangers and OOSH educators needed to be sensitive to the children’s changing moods, boredom especially, and contestation with each other. Many parents and educators have concerns about the risks associated with children being outdoors and therefore the program has an important role to play in illustrating that there are ways to manage and assess risk without taking away the opportunities for children to have free play.

Example: Behaviour problems
“Yes we had a few children with behaviour problems on one day. I found it hard to keep the children apart and playing peacefully” – OOSH educator.

“There were some behaviours on display on the second trip this was more a case of a clash of personalities rather than the outdoor experience itself” – OOSH educator.

“The kids were high strung this morning. They were keen to run and play but their attention span was short. They fitted from one area, one activity, to the next within minutes. Maybe we offered them too many options at first, maybe they aren't just accustomed to entertaining themselves. … Over 5 hours I noticed the changes were: Playing in more varied groups, Spending more time on one activity, Sitting still for longer periods, Curiosity – they were asking me more and more questions about plants and animals, There were fewer disputes in the afternoon – rules were being followed better” – Centennial Park Ranger

Freedom/Order
Free play in a wild space can be a messy, organic spontaneous process. The important consideration for all staff involved in supporting children in such an open ‘play environment’ is to create a balance between allowing for openness of free play while ensuring there is enough order and structure.

Going it alone

Example: Going it alone
This photograph shows one child who making it to a branch of the tree after a physical and personal struggle. As he pushed through the barriers, he challenged himself to master his fear and thus extending his limited play repertoire.

It was observed that rangers and educators supported children to get their hands dirty and experience their environment, including the enjoyment of climbing trees, jumping off logs, exploring wetlands and searching for insects or bugs. These opportunities where children
engaged in openended, hands-on interactions with the environment were critical to creating a sense of curiosity, awe and wonder. Exploration and experimentation without adult interjection or interference allows children to develop executive function and decision-making skills. Another inherent benefit of this style of unstructured wild play is an increase in autonomy and independence. This could be viewed as contributing to the MTOP outcomes: *Outcome 1: Children have a strong sense of identity; and Outcome 4: Children are confident and involved learners.* Although the majority of children over a short time became confident in ‘going it alone’, some were initially reticent and withdrawn from the perceived ‘high-risk’ activities such as tree climbing. One poignant example was of a child who wasadamant that he didn’t want to partake in tree climbing. Further investigation revealed he had never climbed a tree before and considered himself inept and incapable. After receiving sequential guided instruction on ‘how to climb a tree’ he was overjoyed with his newfound skill set.

**Example: Children choosing how to be in nature**

These photographs illustrate the sense of freedom to relax, unwind, and revel in the joy of being free to express their enjoyment of being in nature.

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**Physicality of bodies**

Affordances available in ‘wild play’ space including such natural elements as trees, rocks, branches and logs actively encouraged children to move their bodies around the space. These types of activities are known to support the development of fine and gross locomotive skills of children and improve children’s physical health and wellbeing. The physical skills enacted by children during their time at the site supported skills of agility, flexibility, coordination, balance, strength, manipulation and endurance. During free play children where observed crossing logs, climbing trees or building shelters. Balancing, bending, jumping, leaping, running, hanging, swinging, stepping up and stepping down were some of the identifiable skills on display. These activities could be viewed as children taking responsibility
for their own physical health and wellbeing, an area identified as part of MTOP *Outcome 3: Children have a strong sense of wellbeing*

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**Example 1: Exploring the physicality of child bodies**

![Image of children exploring the physicality of child bodies]

**Example 2: Problem solving with bodies**

![Image of children problem solving with bodies]
Hummingbird/helicopter
The philosophy espoused by the OOSH Leader and Rangers for OOSH in the Bush was one of child centeredness. During the training day significant time was devoted to discussions around the role of the educator, in particular finding the right balance between when to come in and when not to intervene. Rangers were often viewed taking an active role in fostering children’s experiences, understanding and enjoyment in nature. This ‘hummingbird’ role, where Rangers and educators supported from a distance, acted as an important scaffold for children’s play and was an influential stimulus to enhance children’s natural play and social interactions. The photograph below, where we can see both a Ranger and an OOSH Educator in the vicinity of the children’s climbing activities taking photographs and set back from the play, is a good example of this type of hummingbird philosophy. Being able to negotiate between being too interventionist, too controlling and directive compared to hovering at a safe distance, available but not intervening unless needed, is an important skill that educators need to take up as part of the philosophy of free play in nature.

Example: When to Intervene

“If it is the same kid asking the same question time and time again, I think it is OK to say the answer, … but if it is a different activity and they are asking for help without even trying then I will be nudging them more towards giving it a go on their own first rather than me showing them how to do something”.

“…So you saw a situation where I intervened … so if there are safety considerations, if someone is stuck up a tree, or if someone is climbing on a log … and you are thinking ‘oh it would be so much easier if they climbed in such and such a way’…. but my inclination is to let them keep going and let them work these things out on their own … even if the would do things faster or easier if you show them… (pause) because if it took many weeks to learn the same skill, there is something that is more engrained by learning it on your own. The repeated action to learn a skill is more important – it is the clarity of knowledge.”

Order and boundaries
Creating space where children have freedom to explore and be self-directed and the issues of children being exposed in an open public space is one that should always be considered. While in an OOSH centre environment there may be more control over who children come in contact with, in public parks or even on the boundaries of school yards children will have some exposure to the ‘public’. At Centennial Park creating activities and games that reinforce the boundaries, using markers to designate spaces and having adults monitor space were important strategies employed to reinforce the need to constantly be attentive to concerns around order within the boundaries.

Deep learning/Shallow learning
Deep learning means drilling down into depths of knowledge and meaning making so moving from superficial engagement to getting to know something in an immersive and intimate way. Knowing something well.

Applying learning
According to the online survey, 88% of OOSH educators felt the environments at Centennial Park provided opportunities that supported deep learning in the nature play. This was supported by creating balance between revisiting the same activities or spaces a number of times to know them well, as compared to providing for lots of new, changing experiences.

Children’s survey comments on their most enjoyable and engaging OOSH in the Bush experience showed a strong emphasis on two activities: climbing trees and shelter/cubby building. Children also commenting on what they would like to try with their family stated: “To teach them how to climb trees”. “Make a shelter because I like making shelters”. Children also made reference to cubbies when considering what they would like to do back at the OOSH centre: “Making cubbies but not use sticks”. “Try to make a cubby but it would be hard”. “Climb trees!”. For many children these two activities had a huge impact, as they were clearly not normally part of their play activities at OOSH or at home. Over 80% of children said they had learnt new things while participating in the OOSH in the Bush program. While many of these were connected to tree climbing and shelter making there were also a number of other experiences identified by the children: “learnt about nature”, “seeing baby bat”, “we learnt about animals and what they eat”, “learning about how to paint rocks”. Children were also asked what they enjoyed the most at the OOSH site. While climbing trees and building shelters were again the two dominant activities many also spoke about engaging with animals, “seeing animals”, “learning fishing and catching bugs”, using clay (“I enjoy making clay models”), and playing (“because you get free play”).

Creativity and Imagination

Example: Creative and imaginative play

Child 1

“I am making a ‘nature house’” Who is going to live in it? “The bugs”
What are you cooking? "A cake, a wood cake. We are going to have chocolate sprinkles and we are going to use the clay over there for chocolate icing”

"The thing I love about Centennial Park is making dyes and paints. It is really fun, today me and my friend Killian got some charcoal and mixed it up, we put water in it and some ochre and made it into a dye. I have got some on my face here…”

Deep learning is an important outcome from a free learning environment. A child’s imagination is triggered by having a multitude of choices: having a variety of materials available; whether to be solo or play in a group; active or passive play; a hidden location versus an open space; verbal storytelling, including sharing with the educator or researcher; utilising knowledge learnt from that space and knowledge that might be brought in from outside such as TV, videos, games, storybooks. In a free play context educators sparked imagination, by drawing out students’ own authentic stories rather than imposing extraneous adult ones. The research indicates monitoring by an educator is crucial to success in this imaginative domain as children would ask adults to provide resources. Materials can be used as a means for expressing what emerges spontaneously during the child's free play activities. The role of the adult is to be available but not demonstrate how to use materials in a specific way. If they do demonstrate children can then tend to repeat those processes. This can stifle creativity and imaginative play.
Re-visitation/Immersion

Example: Floating and sinking?

Would the clay ball sink? If it was bigger or smaller did it change? At this time children then tried out the balls in the water area. The children then discussed how they had learnt about floating and sinking in science and from that started to construct sail boats. All the time the internal talk and shared dialogue continued exploring issues of the clay as a material object, its weight, feel, malleability. The children during this time constructed a variety of boat like structures complete with sails from leaves and took them to the wetland area to try them out.

Deep learning encourages multiple pedagogies of immersion and re-visitation that incorporate different forms of knowing and learning: for example scientific knowledge, socio-cultural meanings, indigenous ways of knowing, creative expression, experiential learning. Introducing these multiple ways of knowing and learning allows for a deepening of children’s curiosity as they go about engaging and encountering the environment. Rangers employed a number of strategies to encourage children’s immersion including storytelling and Indigenous perspectives. In particular, it was noted when children’s curiosity was aroused, often in response to found objects or animals, Rangers seized opportunities to bring in personal stories. Children also often responded in a dialectical way by mirroring their own stories and experiences. An excellent example of this immersive inquiry was at one visit when, playing with clay, a number of children started to ask questions and explore floating and sinking.

Core/Periphery

As well as providing a context to nature play in action, OOSH in the Bush program aims to support OOSH centres in their implementation of the new outdoor play and sustainability requirements of the My Time, Our Place Framework. This section looks at the activities that were engaged in to support OOSH educators and how they felt about taking up these new ways of working with children in the OOSH centres.

Being prepared

As part of the preparation for the program OOSH educators were invited to participate in a three-hour training workshop at the wild nature play site. Researchers acknowledged that the training day was an important session for both sets of educators to come together and it provided the context for:

• exploring the philosophy of the program;
• logistics and practical requirements (including risk and behaviour management);
• experiential learning activities replicating what children would be engaged in;
• discussions on the role of educators; and
• a chance to look at the OOSH in the Bush program in relation to the MTOP framework

In particular, it was emphasised that the core objective of the program was to ensure the program was driven by a child-centered philosophy that supported children to be active in choosing their free play activities. Survey comments from OOSH educators indicated what they valued doing most at the training day: “Hands-on experiential activities outdoors”;

24
“Interactions with Ranger staff”; “Conversations and comparisons of practice at their care centre”.

**Care/Conservation**

Care and conservation of the physical space is a critical component of the maintenance and the learning that goes during an OOSH in the Bush program. ‘Leave no Trace’ or ‘Minimal Impact’ policies need to be considered in any location and overuse of specific areas needs to be carefully monitored. For example, educators could show children how to have empathy for animals and plants by not trampling spaces or over-scavenging for ‘critters’. As one Ranger commented: “this bug hunting was a big hit, but kids weren’t remembering to let their bugs go”.

If these issues of care and conservation are considered the ‘wild’ attributes of the space became somewhat lost. A lot of the important learning in a nature play space is through subliminal messages. The unsaid silences and ethical values about caring and empathy displayed by the actions of how the natural environment is viewed – as a ‘resource’ or as ‘alive’ - are important movements for teaching care, environmental values and conservation that could contribute significantly to MTOP Outcome 2: Children are connected with and contribute to our world.

This outcome 2 of the MTOP framework has as one of its key areas children becoming socially responsible and showing respect for the environment. If the main goal of OOSH in the Bush in a centre is to support children to be ‘environmentally conscious and caring’ then the role of educators is vital for illuminating these tensions (such as using materials and resource depletion) and therefore helping children to recognise their impact on ‘nature’ and their personal role as environmental stewards. Leaving no trace when the program is finished is not just about the health of the trees and the other elements of nature; it is also about the important modelling and the hidden messages about caring and conservation that are being taken up by children. This is also an important opportunity also to incorporate Indigenous knowledge systems around caring for country and custodianship.

**Taking it on**

If free nature play is to become a core activity back at the OOSH centres then there is a necessity for OOSH educators to be confident reporting against the learning outcomes of the My Time, Our Place curriculum framework. The OOSH in the Bush Leader was asked what she imagined came about because of the program for the educators and she stated:

“I asked myself, through this process, did the educators gain a connection to the place? Feel more comfortable? Did we see that with some of the educators? My goal was to try and create a culture change in OOSH, to introduce nature play into their services. It was always going to be small steps. Feedback from the Maroubra centre was that they are already letting children play with sticks even after the first sessions. I believe if we want to get more kids out in nature, we need more educators to be involved, to be interested and value it. If they don’t then they won’t make that effort and not change their delivery methods”

Additionally, at a more rudimentary level, the researchers were curious whether OOSH educators felt confident to implement what they had learnt back at their centres. The OOSH educators, as part of the online survey, were asked to reflect on their experiences of being part of the program. When asked how they felt they had changed through the experience, 55% said they weren’t sure but 44% felt they had definitely changed. The ways they had changed was expressed as:

“Not so worried about incidents/accidents as children appear to gauge risks for themselves and act accordingly”.
“Feel more confident talking to family members about benefits of nature play”.
“Encouraging all staff to take an interest in learning & participating in nature based programs”.
“Felt the same. Just came out with great ideas”.
“More relaxed when they use sticks and how they carry them”.

Even though they didn't believe their own levels of change were high, 66% of participants felt that children had changed from the experience:

“Possibly a bit more curious about things around them”.
“New friendships and more respect for nature”.
“They interacted with each other without almost any conflict and took initiative in play in their own way”.
“A lot more of the children used natural resources back at school and engaged on some of the activities that they learnt”.
“Children experiencing time to reflect without interruptions, a calming experience that carried through to centre environment”.
“The children could play independently and had a lot more space. I think they felt more in control”.

Researchers also asked OOSH educators how they were making connections and what they could adapt and take back to their centre. This was premised on the case that over 9 out of 10 agreed or strongly agreed that the environment at Centennial Park had important elements that supported deeper opportunities for nature play. OOSH educators felt they could directly use some of the activities that children had experienced back in the OOSH centre, for example shelter making, use of loose materials, and games in the natural environment. They thought there were new ways of incorporating free play into the existing program, rather than all structured play. Finally, OOSH educators anticipated the wider family community being educated about and participating in nature play.

“Shelters can be adapted, we may not have much natural things to use as the school that we lease off, they tend to remove all sticks. But our own junk equipment may be used”.
“Unhindered nature play experiences, children feeling confident with natural elements, staff have fuller understanding of nature play, conversations with family members regarding nature play”.

To support the final outreach stage of the program OOSH in the Bush program staff conducted three webinar sessions with OOSH services. The three sessions included the following program and number of participating services: Introduction to Nature Play (8 services); Safety off the Site (6 services); My Time, Our Place (16 services). An additional two face-to-face sessions were held: climbing in nature (12 participants) and stick play (8 participants).

A final comment from one of the OOSH educators after involving the children in wild nature play:

“This is like the first time we have done something like this. So it’s new for us and new for them as well. One thing I have noticed is that it brings down the intensity of the children. They are much more relaxed, layed back and chilled, so being in this natural environment they don’t have to have that high energy, bouncing off the walls behaviour that they have back at school”
5. Learning from the *OOSH in the Bush* program

The following concluding section will address the opportunities that exist to transfer elements of the *OOSH in the Bush* program to other settings, in particular how it could enhance the outcomes of OOSH programs.

Evidence of Wild Nature Play

Observing and documenting the *OOSH in the Bush* program researchers were able to determine that the following wild nature play outcomes for children could be transferred to other settings and services:

- Wild nature play could provide a space for children to engage with the natural world and allow them to build relations in authentic ways through self-directed encounters with humans and the more-than-human world.
- Wild nature play could provide new opportunities for children to be exposed to the many health and wellbeing benefits associated with being in nature and offers, especially by creating a play environment to share with other children and adults, using their bodies and interacting with each other.
- Wild nature could extend children’s creativity and imagination by natural resources being a source of awe and wonder by inspiring and challenging their curiosity.
- Wild nature play could build children’s environmental knowing and stewardship by allowing them to make decisions about how they come to understand their relationship with the natural world and how they might become active and informed citizens in the future.
- Wild nature play could provide the unique opportunity for children to take measured risks and learn from that risk taking so they are able to move around the environment as confident and successful risk assessors.

Transference to other OOSH services and settings

Physical space

While the size and diversity of space at Centennial Park are unique, many of the program attributes could be adopted in a school playground or parkland area that may be available within walking distance to an OOSH centre. The introduction of loose materials (sand, dirt, bark, sticks, water and stones) even in a more structured environment can provide a variety of elements conducive to creating an inviting nature play space. OOSH services taking their children off site will need to enact operational procedures to ensure the safety and wellbeing of their children particularly when sharing spaces with unknown members of the public and in a dynamic changing landscape.

Engagement of children in nature play

Re-engaging children with nature through play-based experience is the key goal of *OOSH in the Bush*. The program seeks to model authentic experiential activities with children that can be readily produced in OOSH services who are seeking to actively engage with outdoor experiences, animals, plants and weather. Exploring, engaging and observing their ever-changing natural environment has the potential to increase children’s likelihood of developing higher environmental awareness, empathy and action. Natural connections have repeatedly been proven through research to enhance children’s knowledge and sense of connection to the natural world, their capacity to choose alternative play behaviors when on their own or with peers. Supporting children’s engagement in nature play supports a set of learning outcomes that would not be otherwise achieved in settings where play or meaning making was done only with hard, unnatural surfaces or unnatural materials. This program at Centennial Park reveals that while the setting may be unique the activities children liked the most or were active in choosing for their own self-directed play are not outside of activities that could be supported in a setting where some basic natural elements were introduced. The most critical component is not the physical environment but the actual commitment to a philosophy that speaks to children’s innate desire to explore the world around them in order to make sense of how they come to know themselves and others in the world.
Role of Educators
Balancing the roles of educators in nature play as intentional educators and children as autonomous learners is a challenge in and of itself. Tension exists between the desire to step in and assist, especially when children struggle or become frustrated, or may be potentially in risky situations, and the need to leave children to true discovery, socialisation and self-directed learning, even when this involves some measured risk taking. The focus of OOSH in the Bush most helpful to OOSH services, therefore, is a model of immersive practices and pedagogies that are child centered but scaffolded by knowing and supportive adults. By helping children through resources facilitation and gradual development of challenges educators can help children build confidence; make good choices to enhance their learning while being safe; develop their motor skills and health, making them more physical and active beings who can then do more as they become stronger and more adept at managing the spaces; and finally, extend their creativity and imagination for expanding their curiosity and inquiring minds. The role of modeling OOSH in the Bush philosophy by the educators is pivotal to the success of a service based nature play program. The educator must remain cognisant of their personal role and the hidden messages their own behaviours will have on children. Continued professional development and sharing of capacity would be important considerations for the ongoing sustainability of OOSH in the Bush in services.

Achieving learning outcomes
OOSH in the Bush is an important model for illustrating how to achieve the My Time, Our Place curriculum framework outcomes through the implementation and sustaining of nature-based interactions for children. As children’s lives become less natured, as technology, inside and structured leisure, play and school programs take children out of the environments and into buildings it is important that OOSH services utilise the time children have in after school care to be challenged and to expand their curiosity. It should be a time where their self-interests are nurtured “while at the same time developing self-identity and social competencies” (Australian Government 2011: 3). Using the framework of belonging, being and becoming, the MTOP framework acknowledges that after school care should be a time where children can learn to live together and to live with the planet. That learning should be enriching, meaningful, joyful. To achieve their goals, OOSH services will need additional materials and human resources to create a resource rich learning place and to guarantee minimal environmental impact upon limits to the learning landscape.
6. References


7. Appendices

Appendix 1: Quantitative survey materials

Connection to Nature Index (CNI) Survey – Children and Educators

Child or Educator Identification Code: ________
Date: _________________________
Group Number: (circle) 1 2 3 4 5

Administration: To be administered by the researcher individually to each child in the whole class cohort.

Dialogue: I am going to ask you some questions about nature. There are no right or wrong answers; it is not a test. I would just like to know what you think. You can answer by placing a tick under the answer that suits you best – yes, sometimes or no. If you are not too sure, answer with sometimes. I can read the question again if you need to, so just ask. Do you have any questions you would like to ask?

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<th>Sometimes</th>
<th>No</th>
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<td><strong>Enjoyment of nature</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like to hear different sounds in nature</td>
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<tr>
<td>I like to see wild flowers in nature</td>
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<tr>
<td>When I feel sad, I like to go outside and enjoy nature</td>
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<tr>
<td>Being in the natural environment makes me feel peaceful</td>
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<tr>
<td>I like to garden</td>
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<tr>
<td>Collecting rocks and shells is fun</td>
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<tr>
<td>Being outdoors makes me happy</td>
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<tr>
<td><strong>Empathy for creatures</strong></td>
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<td>I feel sad when wild animals are hurt</td>
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<tr>
<td>I like to see wild animals living in a clean environment</td>
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<tr>
<td>I enjoy touching animals and plants</td>
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<td>Taking care of animals is important to me</td>
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<td><strong>Sense of oneness</strong></td>
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<tr>
<td>Humans are part of the natural world</td>
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<tr>
<td>People cannot live without plants and animals</td>
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<tr>
<td>Being outdoors makes me happy</td>
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<tr>
<td><strong>Sense of responsibility</strong></td>
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<td>Picking up rubbish on the ground can help the environment</td>
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<td>People do not have the right to change the natural environment</td>
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### Additional survey questions – Children and OOSH Educators

#### Children

1. I feel more comfortable in nature now than before we started the nature play activities
2. I learnt to do new things when I played at the park.
3. List all of the new things that you have learnt?
4. The adults helped me and made it even better to play in nature
5. List all of the things that the adults did to help you have more interesting play in nature?
6. I feel happy to play in nature and would like to try this when I am at the OOSH centre
7. List the activities you would like to do back at the OOSH centre
8. I would like to try some of the things I learnt at the park when I am with my family
9. List the things you would like to try with your family and why
10. I have learnt to love (appreciate) nature more since doing these nature play activities
11. I feel more comfortable in nature now than before we started the nature play activities

#### OOSH Educators

1. I feel more confident to implement nature play in my own programs at the centre after experiencing the OOSH in the bush program.
2. What things have been most significant in helping to build your confidence? (Please specify)
3. I believe completing the training session prior to taking the children on site was important for me to build confidence.
4. The education rangers shared strategies with me that helped to build my confidence.
5. What parts of the training day did you find most instrumental in supporting your learning? (Please specify)
6. I felt the environment at Centennial Park had important elements that supported deeper opportunities for nature play.
7. What elements do you think you can adapt to take back to your own centre? (Please specify)
8. I believe children changed from being involved in the program.
9. How did the experience change the children? (Please specify)
10. Behaviour management of children was not an issue during the program.
11. Were there any times during the program when you were concerned about children's behaviour? (Please specify)
12. I feel like I have changed from participating in the program.
13. Explain the ways that you have changed from being involved?
14. I believe that all children should have the opportunity to engage in nature play as part of their OOSH experience.
15. Why do you think children should engage in nature play? (Please explain)
Appendix 2: OOSH Information sheet

Out of Hours School Care information for OOSH in the Bush

OOSH in the Bush is an exciting new nature play program that begins delivery in September 2014 and runs till March 2015. The program is funded by the NSW Environmental Trust.

What is OOSH in the Bush?
OOSH in the Bush is a program where 10 Vacation Care or Out of Hours School care centres will visit either Centennial Parklands in the eastern suburbs of Sydney or the Australian Botanic Gardens at Mt. Annan in the south west of Sydney for 10 hours of nature play programming led by experienced Centennial Parklands Education Rangers. The program delivery will occur in the school holidays (September – October 2014, January 2015) and after school (Term 4 2014).

This program is a pilot and as part of the grant conditions it is essential for the program is to be evaluated. This is to ensure that the program is effective and can be repeated on other sites. One outcome of this program is to develop a training resource for OOSH staff to be able to deliver nature play from their own settings. The evaluations will include a pre-program and post program evaluation, reflective journals which will need to be completed by all participants including staff.

Aims of the project:
1) To create a significant and meaningful connection between children from 10 OOSH Centres with a wild place inspiring confidence, curiosity and a sense of care for the animals and plants within it. Overcome “nature deprivation” by re-engaging children, through play-based experiences, with the outdoors, animals, plants, weather. Exploration and observation of changing natural environments to create increased environmental awareness, empathy and action, ultimately encouraging future environmental stewardship.

2) To support OOSH centres in their implementation of the new outdoor play and sustainability requirements of the My Time, Our Place Framework

Project timetable:

**September 1\(^{st}\) – 19\(^{th}\) September 2014**
Training webinars or face to face workshops for participating OOSH staff (Spring groups)

**September / October School Holidays, 22\(^{nd}\) September- 3\(^{rd}\) October 2014**
4 – 5 OOSH groups to visit Centennial Park. Each group to visit for 2 x 5hrs

**Term 4, 6\(^{th}\) October – 18\(^{th}\) December 2014**
1 – 3 groups to visit for 5 x 2hrs (after school sessions)
Training webinars or face to face workshops for participating OOSH staff (Summer groups)

**January School Holidays 5\(^{th}\) – 23\(^{rd}\) January 2015**
1 group visiting for 2 x 5hr sessions delivered from the Australian Botanic Garden
3 -4 groups visiting Centennial Park for 2 x 5hrs

Program requirements:
- Group size a maximum of 40 children (if this is an issue please speak to Sam).
- 80% repeat attendance (staff and children) for all visits /sessions.
- Participants (children and staff) to complete of a pre-program and post program survey/evaluation.
- Participants (children and staff) to complete a reflective journal or diary at the end of each session or within a day of attending a session.
• 80% of participating staff to attend a 3-hour workshop/training session via webinar or in person regarding the role of the Educator at the OOSH in the Bush program.
• If an OOSH group fails to complete all aspects of the program requirements (all visits pre and post program evaluation, reflective journals) then that centre will be invoiced for the Centennial Parklands program ($15 per child) and the cost of the bus.
• 80% permission for per group participants for filming and photography (forms will be provided).
• All participants must sign a written permission form which must be submitted to the program manager before the program commences (forms will be provided).
• Reflective journal to be handed in one week after completion of final OOSH in the Bush Sessions.
• OOSH centres to sign a Letter of Agreement/Memorandum of Understanding agreeing to all of the above before commencing the program.

Centennial Parklands to provide:

• A coach or bus to and from the Parklands/ Mt Annan for all visits that cannot be made on foot.
• Risk assessments and safety documentation for all nature play activities undertaken in the parklands and at the Australian Botanic Gardens Mt Annan.
• All program costs, equipment and wet weather ponchos.
• Professional delivery of all sessions in accordance with the My time our Place quality framework by Centennial Parklands Education Rangers.
• Parents pack outlining the program, safety delivery, location, information on nature play, permission slips and forms.

Want to be part of a fantastic program that hopes to inform nature play in OOSH settings throughout the state?

Please email the program manager Sam Crosby by Friday the 8th of August 2014 if your centre would like to attend the program. If you have any questions or queries about the program please include these in the email. If you have dates you would like to attend please include these in your email.

Appendix 3: Data Log OOSH in the Bush Evaluation Project

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<td>-</td>
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<td>OOSH staff interview</td>
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