

BIODIVERSITY – THE FC’S ROLE IN THE CONSERVATION OF KEY SPECIES**Purpose**

1. To stimulate a strategic discussion on the role of Forestry Commission England (FCE) in the conservation of key species in order to inform our long-term approach.
2. Key questions for discussion:
 - What role should FCE play in developing a new approach to nature conservation?
 - Are we adopting appropriate practical actions?

Background

3. The subject in this paper is one of your forward look strategic items. You have not considered this as a free standing item during the term of office of the current membership.

Government biodiversity strategy – context

4. Since the 1980s Government’s biodiversity strategy has focussed on halting and reversing the decline in species through the restoration of native, semi-natural habitats. The strategies have been ten year affairs, developed through local and national partnerships, with output targets based on area of defined types of habitat. The targets are linked to international targets and framed by European Union scale legislation. Delivery has relied heavily on voluntary action supported by Government funding and advice, backed up by protective legislation such as designating habitats and law to prevent damage to species. They have tended to miss most targets. Most stakeholders assess that there is continued degradation in biodiversity, although we judge the evidence on this is mixed and more positive than most currently assess.
5. The current strategy, “Biodiversity 2020: A strategy for England’s wildlife and ecosystem services” was published in 2010. It shares the features above but has some elements that show a welcome new approach. These include references to ecosystem services; efforts to integrate habitat and species conservation; a more dynamic “bigger, better, and more joined -up” approach to habitats; and a more sophisticated set of proxy indicators of the key objective, particularly species indices. Institutionally, delivery is led by Natural England. Governance is via a Defra chaired Programme Board, that includes FCE representation. The most relevant sub-ordinate partnership forum is the Terrestrial Biodiversity Group. The Board has no powers to direct its members.
6. Biodiversity 2020 is behind on most of its targets. A pre-election review of delivery concluded that the targets were still deliverable provided more resources could be found. Despite the pressure on public finances, this conclusion was accepted by Programme Board. In the meantime, some of the indicators of species richness are positive, such as wetland birds, or have stabilised, such as woodland birds, while others continue to decline, most worryingly farmland birds.

7. The legislative framework is mainly derived from the Wildlife and Countryside act, the Countryside and Rights of Way act (CRoW) and European Union Habitats and Species Directives. Between them (amongst many other things) these require representative habitats to be designated along with sites for key species. This affords them protection from damaging activity and Government must take action to maintain the features for which the site was designated. Government is required to report to the EU on the conservation status of the protected habitats and species. A recently published set of EU regulations provides for the control of potentially damaging invasive, non-native species.
8. The directives are generally viewed as necessary and sufficient by the environmental sector and overly burdensome by the business sector. The UK Government is currently compliant for terrestrial habitats and species. There is constant push from the environmental sector for the UK to do more, including to designate all areas of suitable threatened habitat. There is a European level review of the fitness for purpose of the species and habitat legislation in progress.
9. Ministers have not yet made public statements on the Government's specific stance on Biodiversity 2020 or the review of species and habitats legislation. There was no wildlife related legislation announced in the Queens speech. The Conservative party manifesto committed to "work with the Natural Capital committee to develop a 25 year plan to restore the UK's biodiversity". The first active stakeholder engagement on this is planned for autumn 2015.

Implications for forestry - habitat

10. Forestry will contribute a significant amount to the creation of new priority habitat¹ through creation of native woodland and restoration of planted ancient woodland sites (PAWs). Forestry's contribution is based on 2,500ha per year of woodland creation. We are making reasonable progress on this albeit there has been a dip this year due to the transition to Countryside Stewardship.
11. Forestry will also contribute a significant proportion of priority habitat brought into favourable ecological condition². The overall Bio2020 target is for 90% of priority habitat to be in favourable ecological condition by 2020. We finally agreed at the July 2015 Programme Board that the maximum possible for woodland is 70%, in line with the overall aspiration of 66% of woods in sustainable management by 2018. Achievement of this has so far been just below target but is at increasing risk due to the difficult transition to Countryside Stewardship and uncertainty about the Renewable Heat Incentive, which is a driver of demand for woodfuel and hence woodland management.
12. Biodiversity2020 contains targets for favourable ecological condition of Sites of Special Scientific Interest (SSSIs). Thanks to highly effective work by the FC in 2000 – 2010 the forestry SSSIs are ahead of target.
13. Forestry also has a leading role in the Biodiversity 2020 objective of restoring degraded ecosystems as a contribution to climate change adaptation and mitigation³. Woodland is one of three habitat types chosen as priorities, along with wetlands and coastal

¹ "Outcome" 1B in Bio2020.

² "Outcome" 1A in Bio2020.

³ "Outcome" 1D in Bio2020.

habitats. Forestry's contribution will be measured by the area of woodland in the functional network of native woodland. An increase in this area is caused by both native woodland creation and by bringing native woodland into sustainable management. Forest Research will report shortly on achievement of the 15% uplift implied by the Bio2020 target.

14. FEE is mapping the extent and location and ascribing condition scores to the extensive area of priority habitat on the Public Forest Estate (PFE). The majority is native and ancient semi-natural woodland and planted ancient woodland sites but with considerable areas of other habitats across the country.
15. Managing these habitats tends to have a net cost significantly higher than plantation forestry. Forest Design Plans set out an increase in the area of these habitats at the expense of plantation forestry. Of particular note are the lowland heathland habitats of Dorset and Hampshire and the border mires in the North East.
16. The cost of managing these habitats is set out in the Payments for Ecosystem Services (PES) contract being piloted in 2015/16 that you signed off in February 2015 (Annex 1). The PES contract approach, if it works, will allow FEE and Government to agree the levels of delivery of ecosystem services that do not generate income directly, in this case the supporting service of biodiversity, and the funding required to deliver it.

Implications for forestry - species

17. Success or failure of biodiversity strategy is ultimately best measured through the status of actual wildlife, as shown by species indicators such as the Woodland Birds Index (Figure 1). Also of particular relevance to woodland are the woodland butterflies index and the bat index.

Figure 1: Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data.



18. Historical declines in woodland birds and butterflies, and therefore probably in other taxa, are associated mainly with reduction in connectivity of early succession habitat as woodland management receded over the past 50 years and increased browsing by deer along with climate change and straight habitat loss.
19. In recent years, the bird index has stabilised, which is evidence of success, albeit the continued decline in woodland specialists is a concern. The woodland butterfly index appears to be deteriorating although butterfly populations fluctuate wildly, probably with the weather, so it is hard to discern an overall trend. Bats have never had it so good. While the bat index tends to be reported under the farmland category, most bats rely on woodland habitat. Overall, we judge that woodland related species indices show that our efforts to create more woodland and bring more woodland into active management appear to be working for biodiversity. Threats remain, particularly from over-browsing by deer, climate change, development pressure, and pests and diseases, especially ash dieback.
20. In support of the Bio2020 objective to ‘see an overall improvement in the status of our wildlife and to have prevented further human induced extinctions of known threatened species’⁴, Natural England has recently completed an impressively detailed assessment of the priorities for action to prevent further loss of species from England.
21. This assessment found that there were 158 section 41 (S41)⁵ species, nearly 17% of the total S41 list, and 203 other species, not on the S41 list, which are more likely than not to be lost from England by 2020 unless urgent action is taken. Many of the actions are reliant on Countryside Stewardship. This is on the one hand a good thing because Government has the mechanisms in place to deliver them but on the other hand a bad thing because it implies that survival of the species relies on continued Government funding. 53 of the species are closely associated with trees or woodland (Annex 2).
22. Forest Services has 29 priority actions, mostly related to delivering Countryside Stewardship and our regulatory functions. These are all on track for delivery. Forest Enterprise England has 14, all where a particular species occurs on the Public Forest Estate.

Implications for forestry – legislation and planning.

The species legislation on European Protected Species (EPS) can create a problem for forestry in that the very activities which are needed to conserve woodland EPS, felling of trees and other management activities, might also inadvertently damage or disturb individuals or breeding sites thus breaking the law. Many in the sector consider this to create a perverse incentive to neglect woodland thus reducing its suitability for EPS or at least to increase the costs of sustainable forest management for little benefit. FC is working with Natural England to develop rational approaches to the legislation. The key is for the guidance to allow for management that focusses on conserving populations as opposed to avoiding damage to individuals and for licencing of potentially damaging activities to be as low burden as possible. This includes an organisational licence for FEE.

⁴ Outcome 3 of Bio2020.

⁵ Under Section 41 of the NERC Act 2006 the Secretary of State must, for England, publish a list of habitats and species which in the Secretary of State’s opinion are of principal importance for the purpose of conserving biodiversity.

23. The presence of designated habitats can create a similar depressing effect on forestry activity, especially woodland creation in the buffer zones of Special Protection Areas designated for birds of non-woodland habitats. There is also pressure for deforestation to extend open habitats, particularly lowland heathland. This issue has been largely managed via the “open habitats policy”.⁶
24. Proposals by Natural England in recent years to increase the proportion of woodland habitat in the SSSI series were resisted by the forestry sector as a whole, although welcomed by FEE, and is apparently no longer being actively pursued. That relatively few woodland habitats are designated gives them less protection under the planning system. Nevertheless, Environmental Impact Assessment (Forestry) regulations and planning policy, particularly on ancient woodland and veteran trees, afford protection against deforestation. Between 2000 and 2010 we estimate just 0.02% of ancient woodland by area was converted to non-woodland land-uses in England.

Conclusions.

25. In general terms achieving Government's aims for woodland biodiversity means creating more woodland and bringing more woodland into sustainable management. Both these objectives support other key Government objectives, especially economic growth and reducing carbon emissions. Furthermore, woodland is one of the few habitats where more economic activity, in other words, harvesting of timber, supports biodiversity conservation. There are therefore synergies between what we need to do to conserve key species and what we need to do to achieve other forestry policy objectives. Forest Services' program of grants, regulation, partnership development, standard setting, advice and monitoring to expand and improve woodland should continue as should FEE's program to further improve habitat management on the PFE. An additional area of work in progress that is critical for conservation is to enable landowners to control populations of wild deer, including culling deer on the PFE.
26. There are tensions. Biodiversity 2020 is mainly delivered through Government subsidy for land management. This seems problematic to us because it is unlikely there will be enough funding to achieve the current targets and less likely still that levels of funding will be maintained in the long-term. Instead, we believe the focus needs to be on developing demand and supply of domestic woodland products that result in harvesting of timber to encourage the management activity that supports the birds and insects of early succession. Similarly, on the PFE, the focus should be on developing biodiverse habitats that can be managed cheaply or even at net profit.
27. The “restorationist” approach to most current nature conservation in the UK makes this harder. This posits that nature conservation is mainly about the restoration of past semi-natural habitats and native species. It tries to recreate habitats and assemblages of species that were assumed to be in place at a particular location in pre-industrial times and then keep them in that state. It is this approach that results in the primacy of Government subsidy for delivery; the past semi-natural habitats were created in the past by economic activity, such as coppicing for hazel poles, that has long-gone so there is now no mechanism based on private enterprise to maintain them. It is also this approach that leads many in the conservation sector to define as failure what we in FCE would view as good nature conservation or simply as the inevitable dynamism of landscape. For example:

⁶ “When to convert woods and forests to open habitats in England: Government policy”, www.forestry.gov.uk/england-openhabitats .

- A planted ancient woodland site with a mixture of conifers and broadleaves that both supports native biodiversity and can be managed for timber production, but is not defined as being in favourable condition because it has non-native trees.
- A pine plantation that generates net income and supports high populations of nightjars while absorbing recreation pressure, but the nightjars do not count as much as those on the nearby heath, because nightjars are “heathland birds”⁷.
- A shifting mosaic of open and afforested habitat that is cheap to manage, highly biodiverse, and beautiful but does not count as priority habitat.
- Many people want to avoid all loss of ancient woodland. Some loss is inevitable. Furthermore, ancient woodland by definition cannot be created so it is inevitable that the area of ancient woodland will gradually go down. However, the description “ancient woodland” is actually a proxy indicator of very high biodiversity and cultural ecosystem service values. What is achievable is a rate of loss of ancient woodland that is low enough such that new woodland being created will develop levels of biodiversity and cultural ecosystem services in time to maintain the overall value of ecosystem services from woodland. Instead, the laudable aim of protecting this very high value resource inevitably creates an impression of failure.

28. We detect an emergent 21st Century approach to biodiversity conservation. Examples include parts of the re-wilding movement, Natural England’s mosaic habitat concept, the ecosystem restoration target in Bio2020, a few commentators⁸, and the resilience movement in forestry. This new approach focusses relatively more on using enabling regulation and markets to develop businesses that generate beneficial ecological processes in modern habitats and relatively less on using protective legislation and public funding to try and recreate pre-industrial semi-natural habitats. It presents a compelling, positive vision of 21st Century life in dynamic natural systems as opposed to a picture of degradation that is “our fault”. It does not reject the value of past semi-natural habitats but it learns from them as opposed to being constrained by them. We believe it would be better for species conservation and for other forestry objectives.

29. Forestry and FCE has a prime role in nurturing this movement; productive forestry can create habitats that get better for wildlife if they are managed sustainably, FCE is one of the best at balancing economy, environment, and society, the UK Forestry Standard provides a widely accepted definition of sustainable forest management. We could continue to take a low key approach to this, working with Defra on initiatives like the Government’s 25 year framework for the environment, promoting key messages via FEE’s engagement with the public, making use of the deregulation agenda and supporting those elements of the Government’s biodiversity strategy that move us in this direction. We should recognise that embedding a new approach would require significant cultural and legislative change and the area is contested, challenge is likely. Therefore, as a Government department this more cautious approach is perhaps the most appropriate. However, this is urgent and important, loss of species is a threat to society and continued focus on Government funding seems untenable in the post-banking crisis economy. Therefore, we could use our expertise and the land we manage to work to change nature conservation from a 20th Century “restorative” approach to a 21st Century “transformative” approach.

Dom Driver, Rebecca Isted, Forest Services; Jonathan Spencer, Forest Enterprise England. 9th September 2015.

⁷ If nightjars were described for the first time tomorrow they might be defined as birds of pine plantations.

⁸ For example, Joseph Mascaro on “The Ancient Practice of Ecosystem Creation” in Hawaii
<http://thebreakthrough.org/index.php/journal/issue-5/earth-makers>.