



NEPCon Interim Standard for Assessing Forest Management in Bulgaria

Title: NEPCon Interim Standard for Assessing Forest Management in

Bulgaria

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1. Introduction

A key purpose of NEPCon is to recognize good forest managers through credible independent certification of forestry practices. NEPCon is a certification body accredited by the Forest Stewardship CouncilTM. The purpose of these standards are to provide forest managers, landowners, forest industry, scientists, environmentalists and the general public with information on the aspects of forest management operations that NEPCon evaluates to make certification decisions in the Forest Stewardship Council (FSCTM) certification system. The NEPCon Generic Standards for Assessing Forest Management standards are the default starting point for the development of region-specific NEPCon Interim Standards that shall be developed in all locations where there are no existing, approved FSC standards. The principles, criteria and indicators¹ in this document are applicable for assessing all forest management operations (FMEs) with wood production as a major (though not exclusive) objective. These standards are global in application, for all forest types. This Standard will be reviewed annually and revised if needed to ensure continued conformance with all approved FSC policies, standards, directives, guidelines and advice notes that apply to the interpretation of the FSC Principles and Criteria.

2. Background

Forests can be managed for many different objectives and products. Such management can occur in natural forests or plantations, for timber or non-timber forest products, include mechanised or manual harvesting, and managed by a large industrial operation or a local community or landowner cooperative. Many combinations are possible. A critical question has been - how to evaluate the wide range of ecological, socioeconomic and silvicultural impacts of forest management activities in a clear and consistent fashion, based on a combination of scientific research and practical experience?

3. Public Comment

The certification process has both public and private aspects. Certification assessments are not public documents unless specifically required by law (e.g. for some public forests) or approved for public distribution by the certified operation. However, three public documents are available for each and every certified FME:

- A public stakeholder consultation document that announces each certification assessment 45 days prior to field work:
- 2. The certification standard used; and,
- 3. A public certification summary including the results of each separate forest certification.

The stakeholder consultation document is typically distributed by hand delivery, fax, mail, or email and is also posted at the NEPCon website www.NEPCon.net. The specific NEPCon standard used for each assessment is also publicly available before and during the assessment and is a part of the public record for every forest certification. The public certification report summary is produced as a final step of the certification process and is available only after an operation has been approved for certification. For copies of any public stakeholder consultation document or NEPCon interim

¹ It is NEPCon philosophy to keep the certification process as straightforward and simple as possible, without sacrificing technical quality, in order to foster the value of certification as an educational, policy, and training tool. In practice this means writing as clearly as possible and keeping scientific terms to a minimum.



Forest Management standard, visit www.NEPCon.net. For public certification summaries, visit the FSC database http://info.fsc.org/, or contact NEPCon's certification headquarters (NEPCon | Filosoofi 31 I 50108 Tartu, Estonia, email estonia@NEPCon.net, phone +372 7 380 723). We strongly encourage you to give us your input, either positive or negative, on our candidate or certified operations, certification standards, or certification procedures.

Note on the use of this standard: All aspects of this standard are considered to be normative, including the scope, standard effective date, references, terms and definitions, tables and annexes, unless otherwise stated.

4. Regional Standards

FSC working groups around the world are developing country- or region-specific forest certification standards. NEPCon fully supports, encourages and participates wherever possible in such processes. Our experience is that the regional standard setting process is vital. Regional standard setting is an excellent way of engaging the public in important, broad ranging discussions on the future of forests and human communities. In other words, the regional standards setting process should not be seen just as a technical standards setting process, but also as a process of outreach on the topic of sustainable forest management.

As part of the FSC process, regional standards are developed by a regional working group, field-tested, revised and approved by the regional working group, and then submitted to the FSC's international headquarters for approval. The final product, if approved, is an "FSC endorsed standard". Once accredited, all FSC-approved certifiers (like NEPCon) must use the endorsed regional standard as the fundamental starting point for FSC certification in that country/region. Certifiers may choose to be more rigorous than the regional standard, but they cannot be less rigorous.

In all countries or regions not covered by an FSC accredited forest stewardship standard, NEPCon will develop a locally adapted or interim standard for use in evaluating forest management operations in that designated geographic area. The adapted standard is developed from the NEPCon generic standard with modification to certification indicators to take into account the national context (e.g. legal requirements, environmental, social and economic perspectives). This draft will be translated to the official language of the country in which the FME to be evaluated is located and is be submitted for consultation at least 45 days prior to the start of fieldwork for a full assessment. Distribution to key stakeholders occurs via the Internet (email and posted on the NEPCon website), mailings and face to face meetings.

Operations certified under a previous FSC or NEPCon standard have a minimum of one year to meet any newly endorsed FSC regional standard.

NEPCon have also used other sources as basis for and inspiration for developing the indicators and verifiers of the Interim Standard. Among the documents that have been reviewed and considered in developing this Interim Standard are:

- FSC-STD-01-001 (version 4-0) FSC Principles and Criteria for Forest Stewardship
- FSC-STD-20-002 (version 3-0) Structure, content and local adaptation of certification body generic Forest Stewardship Standards.
- FSC-POL-30-401 FSC certification and ILO conventions.
- FSC-STD-01-003 SLIMF Eligibility Criteria
- NEPCon Generic Standards for Assessing Forest Management"
- NEPCon Global Non Timber Forest Product Certification Addendum

Structure of the NEPCon Standards

The NEPCon generic standards are based directly on the global FSC Principles and Criteria for Forest Stewardship (FSC-STD-01-001). They include specific generic indicators for each criterion to create a global NEPCon standard.

These indicators are the starting point from which region-specific "NEPCon Interim Standards" are developed for use in the forest by auditors who evaluate the sustainability of forest management practices and impacts of candidate FMEs.

The standards are divided into the following ten principles:

- 1 Compliance with Laws and FSC Principles
- 2 Tenure and Use Rights & Responsibilities
- 3 Indigenous Peoples' Rights
- 4 Community Relations and Workers' Rights
- 5 Benefits from the Forest
- 6 Environmental Impact
- 7 Management Plan
- 8 Monitoring and Assessment
- 9 Maintenance of High Conservation Value Forests
- 10 Plantations.

In the standard, each FSC principle and its associated criteria is stated, along with the NEPCon generic indicators. All criteria in all principles must be evaluated in every assessment; unless certain principles are deemed not applicable by NEPCon auditors (e.g. Principle 10 will not be applicable if there are no plantations).

6. Indicators for Small and Large FMEs

As required under FSC policy, NEPCon has developed indicators for certain criteria² that are specific to certain sizes of operations. Clear quantitative definitions for small versus large FMEs are included in regionalised NEPCon Interim Standards. Where these NEPCon regional thresholds are not established, large FME should be considered those larger than 50,000 ha. Small FME definition is determined by FSC regional thresholds set for Small and Low Intensity Managed Forests (SLIMF) which have been set either globally by FSC (100 ha) or by FSC National Initiatives.

² Criteria 6.1, 6.2, 6.4, 7.1, 7.2, 7.3, 7.4, 8.1, 8.2, 8.3, 8.4, 8.5. 9.1, 10.5 and 10.8.



7. Contents of the standard

A Scope

This standard shall be the basis for FSC forest management certification of forest management enterprises in Bulgaria. This standard shall be applied within all forests and forest types located in Bulgaria.

Some indicators are only applicable for either small and/or low intensity managed forests (SLIMF), medium size or large forest management operations/enterprises (FME) or a combination of them. For the purpose of this standard the thresholds for SLIMF, Medium and Large FMEs is following:

SLIMF FMEs: a) FMEs managing forest area below 500 hectares;

b) FMEs where the rate of harvest is less than 20% of mean annual increment and total annual

harvest is less than 5000 cbm;

Medium size FMEs: FMEs managing forest area of 500 to 10 000 hectares;

Large size FMEs: FMEs managing forest area over 10 000 hectares.

B Standard effective date

This standard shall be effective from 19 December 2014

C References

FSC-STD-01-001 (v4-0) FSC Principles and Criteria for Forest Stewardship

FSC-STD-01-002 (v1-0) FSC Glossary of Terms

D Terms and definitions

See Annex 1 for glossary.

Acronyms:

FME: Forest Management Enterprise

FSC: Forest Stewardship Council

HCVF: High Conservation Value Forests

SLIMF: Small and Low Intensity Managed Forests

PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

- 1.1 Forest management shall respect all national and local laws and administrative requirements.
 - 1.1.1. The staff is aware of relevant to their responsibilities laws and regulations.
 - 1.1.2. There is no evidence of non-compliance with requirements of related national and local environmental, labor and forestry laws and regulations.
 - 1.1.3 Large and Medium FME: Access to relevant legislative documents shall be available for the staff in the head office.
 - 1.1.4. Discovered non-compliances with legislation shall be documented and corrective actions shall be implemented to prevent their recurrence.
- 1.2 All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.
 - 1.2.1 FME shall demonstrate records confirming up-to-date in payment of applicable fees, taxes, timber rights or leases, royalties and other charges.
 - 1.2.2 Where FME is not up-to-date on payments, a plan for completing all payments shall have been agreed to with the relevant institution.
 - 1.2.3. When discrepancies arise, FME shall have full documentation related to that, including the corrective actions that had been taken to solve it.
- 1.3 In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.
 - 1.3.1 Large and Medium FME: FME shall be aware of and understand the legal and administrative obligations with respect to relevant international agreements.
 - 1.3.2 FMEs shall meet the intent of applicable conventions including CITES, Convention on Biological Diversity and ILO conventions (29, 87, 98, 100, 105, 111, 138, 182 and other binding conventions).
- 1.4 Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case-by-case basis, by the certifiers and the involved or affected parties.
 - 1.4.1 Perceived conflicts between laws, FSC P&C and international treaties or conventions shall be identified by FME.
 - 1.4.2 FME SHOULD work in conjunction with the appropriate regulatory bodies, FSC National Partner (or respective FSC body) and other parties to resolve conflicts between laws/regulations and FSC Principles or Criteria.
- 1.5 Forest management areas should be protected from illegal harvesting, settlement and other unauthorised activities.
 - 1.5.1 Large and Medium FME: A monitoring system, including periodic inspections, shall exist for protection of the forest management unit(s) from illegal harvesting, settlement, occupation, poaching or other



unauthorised activities.

- 1.5.2. The forest manager shall take reasonable legal measures to prevent unauthorised harvesting activities, settlement, occupation, poaching.
- 1.5.3 Instances of Illegal harvesting, settlement and other unauthorized activities shall be documented and reported to the responsible authority (e.g. police, prosecution, forestry and environmental authorities).
- 1.6 Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.
 - 1.6.1 Large and Medium FME: FME shall have a publicly available policy or statement committing the organisation to adhere to the FSC certification standards on the forest under assessment.
 - 1.6.2 FME shall not implement activities that blatantly conflict with the FSC P&C on forest areas outside of the forest area under assessment.
 - 1.6.3 FME shall disclose information on all forest areas over which the FME has some degree of management responsibility to demonstrate conformance with current FSC policies on partial certification and on excision of areas from the scope of certification.

PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

- 2.1 Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.
 - 2.1.1 FME shall have documented evidence of legal, long term (at least one rotation length or harvest cycle) rights to manage the lands and to utilise the forest resources for which certification are sought.
- 2.2 Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.
 - 2.2.1 Recognized legal or customary tenure or use rights to the forest resource of all local communities shall be clearly documented by the forest managers.
 - 2.2.2 If any local community or other interested party claim certain rights over the land, such claims are legally proven.
 - 2.2.3 FME shall provide evidence that free and informed consent to management activities affecting use rights has been given by local communities or affected parties.
 - 2.2.4 Large and Medium FME: FME shall ensure that local communities have access to the forest for collection of Non-Timber Forest Products (NTFP) such as berries, mushrooms, herbs for own consumption.
 - 2.2.5 Large and Medium FME: FME shall ensure that local communities have controlled access to take or buy wood for their own consumption (e.g. firewood) at a reasonable price.
- 2.3 Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification

evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.

- 2.3.1 Records shall be maintained of disputes and claims over tenure and use rights.
- 2.3.2 FME shall use mechanisms for resolving conflicts over tenure claims and use rights that respectfully involve the disputants aiming to achieve agreement or consent.
- 2.3.3 Disputes, which are not resolved through agreement or consent with the disputants, shall be solved in independent courts.
- 2.3.4 FME shall not continue its activities that had caused the dispute unless the dispute is solved through achieved agreement or court decision.

PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS

The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected.

Not applicable for Bulgaria

PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS

Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.

- 4.1 The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.
 - 4.1.1 FME ensures to local communities and residents equal opportunities in terms of employment, promoting, dismissal, remuneration, training and other benefits or opportunities.
 - 4.1.2 Evidence of efforts made for providing stable employment for all staff shall exist.
 - 4.1.3 There is no evidence of limiting access of staff and local residents to basic forest functions and social services such as health, education, leisure and tourism.
- 4.2 Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.
 - 4.2.1 Wages and other benefits (health, retirement, worker's compensation, housing, food) for full-time staff and contractors shall be consistent with (not lower than) prevailing local standards.
 - 4.2.2 FME shall implement a program of worker safety with health and safety measures complying with national minimum requirements.
 - 4.2.3 Large and Medium FME: FME shall maintain up to date records of work-related accidents (staff and contractors) and documented steps taken to minimize risk of further accidents.
 - 4.2.4 Compensations are granted to the workers in case of accidents.
 - 4.2.5 Workers (staff and contractors) shall be instructed about procedures in case of emergency situation such as accident, fire or oil spill.



- 4.2.6 Workers (staff and contractors) shall be aware of and shall implement safe working practices.
- 4.2.6 FME shall conduct regular checks to ensure that all safety procedures are observed in the field. Safety performance is recorded.
- 4.2.7 Chain saw operators (staff and contractors) shall be provided and use on the field appropriate health and safety equipment, including: hard helmet with hearing and eyes protection, high visibility vest/jacket, steel toe boots and chainsaw proof chaps.
- 4.2.8 Other workers, than chain saw operators, shall be provided with safety equipment in good working order, relevant to the tasks of worker and the equipment used (e.g. according to national norms and/or to ILO Code of Practice on Safety and Health in Forestry).
- 4.2.9 Workers involved in tree felling and dangerous work such as storm damage removal, tree climbing shall never work alone.
- 4.2.10 Any person entering an ongoing logging site shall wear a helmet and high visibility vest.
- 4.2.11 Durably equipped first aid kit shall be available for workers (staff and contractors) on the on-going logging sites.
- 4.2.12 Tractors and other self-propelled machinery for forest works shall be equipped with secure cabin compliant with the legislative requirements.
- 4.2.13 Warning signs shall be posted at main access roads to sites with ongoing logging operation.
- 4.2.14 Workers who are staying overnight in the forest shall have appropriate sleeping and toilet facilities and sufficient supply of drinking water.
- 4.2.15 The requirements of criterion 4.2 shall also apply to workers' family members in case of their presence on work area.
- 4.3 The rights of workers to organise and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).
 - 4.3.1 FMEs, by their actions and policies, shall respect the rights of workers (staff and contractors) to organise or join trade unions and to engage in collective bargaining as outlined in ILO Conventions 87 and 98.
- 4.4 Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations.
 - 4.4.1 Large and Medium FME: In conjunction with local stakeholders and other interested parties, the FME shall evaluate socio-economic impacts associated with forest management activities, e.g. including:
 - 4.4.1.1 identification of affected groups;
 - 4.4.1.2 consultation with affected groups;
 - 4.4.1.3 identification of the main impacts of the operation on affected groups;
 - 4.4.1.4 specification of mitigation measures for identified negative impacts;

- 4.4.1.5 monitoring of effectiveness of measures in consultation with the affected groups.
- 4.4.2 Large and Medium FME: FME has in place a system to document stakeholder concerns and request followed by relevant FME's responses.
- 4.4.3 SLIMF: FME shall conduct and keep records of stakeholders' consultation regarding social, social-economic and cultural values that might be affected by the scale of forest management.
- 4.4.4 FME shall demonstrate that input from community participation (socio-economic assessments, consultations) was considered and/or responded to during management planning and operations.
- 4.4.5 Areas of special economic, ecological, cultural or spiritual values for local communities shall be mapped and management shall take these values into considerations.
- 4.5 Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.
 - 4.5.1 FME shall make all reasonable efforts to avoid losses and damages affecting local peoples, and in resolving grievances related to legal rights, damage compensation and negative impacts.
 - 4.5.2 Procedures for consistently and effectively resolving grievances and determining compensation for loss or damage in consultations with the affected parties in order to reach an agreement shall be implemented.
 - 4.5.3 Large and Medium FME: FME shall have a documented procedure for implementation of the requirements in 4.5.1 and 4.5.2.

(Note: See Criterion 2.3 for resolution of land tenure (e.g. property or use rights) challenges.)

PRINCIPLE # 5: BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

- 5.1 Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.
 - 5.1.1 Budgets shall include provision for environmental and social as well as operational costs necessary to maintain certifiable status (e.g. all due taxes, fees, other obligations required by the law, management planning, road maintenance, silvicultural treatments, long-term forest health, growth and yield monitoring, investments for maintaining biological productivity of the forest and conservation investments).
 - 5.1.2 The income predicted in the operating budgets shall be based upon sound assumptions (e.g. the legally approved levels / rate of harvest and the evolution of the market).
- 5.2 Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.
 - 5.2.1 FME shall seek the "highest and best use" for individual tree and timber species.



- 5.2.2 Considering local and regional economic needs, FME shall produce and introduce to the market a wide range of forest products, encouraging utilisation of frequently occurring, lesser known, or lesscommonly utilised plant species.
- 5.2.3 Non-timber forest products (NTFPs), e.g. seeds, berries, mushrooms, herbs, resin, greenery, Christmas trees and game, should be considered during forest use and processing.
- 5.2.4 Large and Medium FME: FMEs shall emphasise local enterprises, making at least proportion of their production available to the local small-scale industries and processing operations.
- 5.3 Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.
 - 5.3.1 The system of existing and planned forest roads, bridges, and logging trails shall be appropriate to the scale and intensity of management operations and shall take into account environmental constraints.
 - 5.3.2 Harvesting, extraction and transportation techniques shall be designed to avoid log breakage, timber degradation and damage to the forest stand, to other forest resources and to the soil.
 - 5.3.3 Harvested and processed wood/products on-site shall be transported from the forest before any deterioration occurs.
 - 5.3.4 FME shall remain as much as possible of usless biomass in the forest, and shall limit practice of whole tree harvesting to minimize the waste generated through harvesting operations and on-site processing.

(Note: See Principle 6 for assessing damage to forest resources)

- 5.4 Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.
 - 5.4.1 FME shall foster product diversification and exploration of new markets and products.
 - 5.4.2 FME shall support local value added processing, considering in its marketing and sales policy the needs of local market.

(Note: See also Criterion 5.2)

- 5.5 Forest management operations shall recognise, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.
 - 5.5.1 FME shall consider and maintain the full range of forest services associated with the defined forest area including: municipal watersheds, commercial and recreational fisheries (or the supply of water to downstream fisheries), visual quality, contributions to regional biodiversity, recreation and tourism.
 - 5.5.2 FME shall protect riparian zones along all watercourses, streams, pools, springs and lakes/ponds, consistent with the requirement of national regulations or best management practices.
 - 5.5.3 FME should map riparian protection zones that enhance the value of forest services and resources, such as watershed and fisheries (See also Criterion 9).
- 5.6 The rate of harvest of forest products shall not exceed levels which can be permanently sustained.
 - 5.6.1 Appropriate to the scale and intensity of operations, estimates of total periodic timber growth on the defined forest area by species categories shall be generated through a combination of empirical data and published literature.

- 5.6.2 Allowable harvest levels shall be based on well-documented and most current estimates of growth and yield in accordance with the valid regulations for forest management planning.
- 5.6.3 Harvesting shall be based on a calculated periodic allowable harvest (e.g. annual allowable cut) and actual harvests do not exceed calculated replenishment rates over the long term.
- 5.6.4 Harvested volumes shall be strictly documented, including site description, dates, species, quantities, assortments, client, and terms and conditions of harvesting.
- 5.6.5 Large and Medium FME: FME shall document commercial harvest of NTFP such as seeds, mushrooms, herbs, berries, Christmas trees, greenery, game and fishing.

PRINCIPLE #6: ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

- 6.1 Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.
 - 6.1.1 Large and Medium FME: Environmental assessments shall be completed during management planning, including designation of mitigation measures in forestry planning and harvesting documentation.
 - 6.1.2 Large and Medium FME: Environmental assessments shall consistently occur prior to site disturbing activities and the potential impact shall be addressed during the performance of the activities (e.g. silviculture system used, constructions of new roads, maintenance of drainage systems, time and terms of harvesting, wet soil types handling with precautions, sensitive bird habitats not intervening in the nesting period, etc.).
 - 6.1.3 Large and Medium FME: Landscape level impacts of forest management (e.g. cumulative effects of forest operations within and nearby the FMU) shall be considered.
 - 6.1.4 SLIMF FME (note: above indicators do not apply): Before initiating any operation (as harvesting, planting, construction in forest, road building), the possible negative environmental impacts shall be identified and the operation is designed to minimise them, taking into account the existing officially registered protected species, HCVs, wet soils and watercourses. Assessments do not need to be documented unless legally required.
 - 6.1.5. Environmental impacts of on-site processing facilities shall be controlled (e.g. waste, construction impacts, etc.).
- Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.
 - 6.2.1 Large and Medium FME: The likely presence of rare, threatened or endangered species and their



- habitats (e.g. nesting and feeding areas) shall be assessed on the basis of the best available information. A written list of identified species and habitats shall be available.
- 6.2.2 Large and Medium FME: Appropriate to the scale and intensity of management, conservation zones or other protection measures shall be established, located in areas where they can offer a maximum contribution to the biodiversity conservation goals (e.g. the zones could include areas assigned under requirement of 6.4.1, officially designated Protected Areas, old-growth-forests, areal of threatened, rare and endangered species or ecosystems in the FME, marginal forest habitats forest belts, riparian and stream-side vegetation, vegetation on rocky areas, swamps and heaths, non-forested areas like wetlands, meadows, grasslands or other areas excluded from operation or valuable for biodiversity).
- 6.2.3 Large and Medium FME: Officially designated Protected Areas and the zones assigned by the FME for conservation and protection SHOULD be demarcated on maps, and where feasible, on the ground.
- 6.2.4 Large and Medium FME: Effective procedures shall be implemented during forest operations in conservation zones to ensure protection of identified values, species and their habitats.
- 6.2.5 SLIMF FME (note: above indicators do not apply): FME shall be aware of the officially registered protected species in the forest area, as well as where information exists on other rare, threatened and endangered species and their habitats. The FME shall use this information to protect these resources.
- 6.2.6 Timber species on either local and/or international endangered or threatened species lists (e.g. CITES Appendix 1, national lists) shall not be harvested.
- 6.2.7 Hunting, fishing, trapping and NTFP collecting shall be controlled in the forest. FME shall avoid hunting, fishing, trapping or collecting of protected species.
- 6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including:
 - a) Forest regeneration and succession.
 - b) Genetic, species, and ecosystem diversity.
 - c) Natural cycles that affect the productivity of the forest ecosystem.
 - 6.3.1 The forest manager shall have site-specific data or published analyses of local forest ecosystems that provides information on the FMU with regards to:
 - 6.3.1.1 Regeneration and succession
 - 6.3.1.2 Genetic, species and ecosystem diversity
 - 6.3.1.3 Natural cycles that affect productivity.
 - 6.3.2 Forest management systems shall maintain, enhance or restore ecological functions and values of the FMU based on the data in 6.3.1. Management systems shall include:
 - 6.3.2.1 Silvicultural and other management practices which are appropriate for forest ecosystem function, structure, diversity and succession
 - 6.3.2.2 Where appropriate, a program for the restoration of degraded sites
 - 6.3.2.3 Natural regeneration, unless data shows that enrichment planting or artificial reforestation will enhance or restore genetic, species or ecosystem diversity.

- 6.3.4 Use of clear cuts in the FME shall be discouraged and carefully controlled, but if it is planned, the area of clear-cuts in natural and semi-natural forests of native species shall not exceed 2 hectares in size. In forest plantations and in stands of non-native species, the area of clear-cuts shall not exceed the scope of the related sub-compartment. Felling sites with clear cut in neighbor stands (sub-compartments) shall not be merged or shall not be implemented in one and same time period. Recurrence of cuts (between each cut and between neighbor stands) in all types of forests shall not be shorter than 5 years.
- 6.3.5 The scale of final phases of shelterwood/step-wise system (open gaps, coupe size) in natural and seminatural forests of native species shall not exceed 2 ha in area. Recurrence of cuts shall not be shorter than 5 years.
- 6.3.6 The scale of regeneration gaps (coupe size), different than in final phases of shelterwood/step-wise system, shall resemble the natural dynamics in the native forest types (e.g. 0.1-0.3 ha but not exceed 0.5 ha in area).
- 6.3.7 Natural elements of forest ecosystems (hollow and old standing trees, nesting trees, snags, pioneer tree species, wild fruit trees, etc.) shall not be eliminated and shall be kept uncut at the site, with consideration of national requirements on work safety.
- 6.3.8 FME shall leave dead and decaying wood, standing and fallen, diverse in their size and species, with consideration of national requirements on work safety. Amount of the dead wood is based on scientific evidence, shall refer to local conditions and dominant function of the forest, as well as shall be spatially differentiated (greater amounts shall be left in nature reserves, conservation zones, areas out of use, xylobiont's sites).
- 6.3.9 FME shall maintain with limited interventions the marginal forest habitats (forest belts, riparian forests, vegetation on rocky areas, swamps and heaths).
- 6.3.10 At least 10 living biotope trees per hectare shall be left in clear cuts and shall be left uncut forever. Biotope trees should be selected preferably in groups in consistency with 6.3.7, 6.3.8, 6.3.9.
- Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.
 - 6.4.1 Large and Medium FME: Representative samples of existing ecosystems on at least 5% of the forest land shall be mapped and protected in their natural state, being entirely excluded from timber harvesting, unless forest health and sanitary regulations require intervention. Selection of those areas shall be based on the identification of existing rare, threatened or endangered forest ecosystems and old-growth-forests, and/or throughout consultation with environmental stakeholders, local government and scientific authorities.
 - 6.4.2 Large and Medium FME: In conjunction with experts, protection and restoration activities shall be defined, documented, and implemented in the forest.
 - 6.4.3 SLIMF FME (note: above indicators do not apply): Where representative samples of ecosystems are known to exist in the FMU these shall be protected.
- Written guidelines shall be prepared and implemented to: control erosion; minimise forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.
 - 6.5.1 Large and Medium FME: All forest operations with a potential for negative environmental impact (as



identified in 6.1) shall have written guidelines defining acceptable practices for implementation. Such operational guidelines shall be available to the related staff and contractors and shall meet or exceed national norms, taking into consideration:

- 6.5.1.1 Constructions in forest and building roads are avoided in environmentally sensitive areas, as steep, narrow valleys, slip-prone or other unstable areas, in valley bottom and stream sides. Existing roads in streambeds or in other environmentally sensitive areas shall be closed and replaced with alternative road outside such areas;
- 6.5.1.2 Buffer zones with limited interventions in at least a tree height shall be left along permanent water courses/bodies and open landscape;
- 6.5.1.3 Maps and/or work plans shall be produced at a scale that allows effective supervision of soil and water resource management and protection activities;
- 6.5.1.4 New roads and logging operations are traced/planned in advance on the maps and/or work plans, which allows effective supervision of soil and water resource management and protection activities;
- 6.5.1.5 Wherever possible roads are located on natural benches, ridges and flatter slopes;
- 6.5.1.6 Drains, ditches, bridges, planting for soil fixation or other necessary measures are planned as road attributes in order to avoid erosion;
- 6.5.1.7 Stream crossings are planned and registered on maps before the construction works begin. Number of stream crossings is kept to a minimum and they are designed perpendicular to the stream; 6.5.1.8 Drains do not flow into the water streams and where possible silt trans / water buffers are
- 6.5.1.8 Drains do not flow into the water streams and where possible silt traps / water buffers are designed;
- 6.5.1.9 Culverts are designed in order to avoid obstruction of fish-migration and creation of fast water velocities or other unsuitable for fish streambeds.
- 6.5.2 SLIMF FME (note: above indicator do not apply): FME shall be aware of soil types appropriate for logging in different seasons (winter, spring, summer or autumn) to avoid soil damage.
- 6.5.3 Harvesting documentation shall include descriptions, maps and/or work plans, specifying areas suitable for all-weather harvesting or dry-weather only; and indicating locations for extraction (or haul) roads, loading ramps (or log yards), main skid (or equivalent) trails, drainage structures, buffer zones, and conservation areas.
- 6.5.4 Operational guidelines to the field staff and contractors shall cover technical specifications for skid trail (location, width and density), log landing, buffer zones, maintenance and protection of forest stands, species and habitats.
- 6.5.5 Training shall be given to FME staff and contractors to meet guidance requirements.
- 6.5.6 The need to minimize damage to soils, residual trees, regeneration and other forest resources shall be taken into account when new harvesting and extraction machinery is selecting for use or purchase (See also 5.3.2).
- Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organisation Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimise health and environmental risks.
 - 6.6.1 Forest managers shall employ silvicultural systems, integrated pest management and vegetation control strategies that result in the least adverse environmental impact. Pesticides are used only when non-chemical management practices have been proven ineffective or cost prohibitive.

- 6.6.2 If chemicals are used, the following requirements apply:
 - 6.6.2.1 A complete inventory of chemicals shall be provided by the FME and detailed inspections of storage areas or other facilities validate that inventory is complete and in accordance with the applicable national norms;
 - 6.6.2.2 Transportation and storage are made in safe and sealed/leak proof spaces/conditions;
 - Records shall be kept of all chemical used by the FME including name of the product, location and method of application, total quantity of chemical used and dates of application.
 - 6.6.2.4 Safe handling, application (using proper equipment) and storage procedures shall be followed:
 - 6.6.2.5 Chemical treatments are prohibited at a distance of less than 20 m from water streams and 30 m from water tanks/reservoirs and lakes;
 - 6.6.2.6 Chemical treatments are prohibited during the periods when the soil is frozen, covered with snow, rainy periods or severe draught;
 - 6.6.2.7 The introduction of chemically treated saplings is prohibited in water streams, swamps, wells or carst areas;
 - 6.6.2.8 Prior to apply the treatments there shall be taken actions to warn the animal breeders and the bee-masters in the area; and,
 - 6.6.2.9 Staff and contractors shall receive training in handling, application, storage and accident procedures.
- 6.6.3 Chemicals prohibited by the FSC (FSC-POL-30-601) or those banned in Europe and nationally, or World Health Organisation Type 1A or 1B and chlorinated hydrocarbon pesticides shall not be used. The exception is when a formal derogation has been granted by the FSC. In such cases, the FME follows the terms of the approved derogation.
- 6.7 Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.
 - 6.7.1 Chemical, container, liquid and solid non-organic waste shall be disposed of off-site in an environmentally sound and legal manner, whether from forest operations or processing facilities.
 - 6.7.2 Efforts shall be taken to control and minimize disposal of all types of waste in the forest including garbage left from visitors.
 - 6.7.3 Appropriate oil absorbent kit shall be available in forest machinery.
 - 6.7.4 Appropriate oil absorbent kit or spill proof tanks shall be used at chainsaw's filling points.
 - 6.7.5 Biodegradable oil SHOULD be used for chainsaws and for hydraulics of the forest machineries.
- 6.8 Use of biological control agents shall be documented, minimised, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.
 - 6.8.1 Use of biological control agents shall be documented, minimised, monitored and strictly controlled.
 - 6.8.2 Use of genetically modified organisms (GMOs) shall be prohibited.
- 6.9 The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.
 - 6.9.1 Use of exotic species shall be discouraged and carefully controlled, i.e. when used it is for well-justified and specific purposes (e.g. environmental benefit) and monitored for environmental impact.



- 6.9.2 Exotic species shall not be newly introduced and cultivated in natural forest.
- 6.9.3 Where exotic species are planted, measures shall occur to prevent spontaneous regeneration outside plantation areas, unusual mortality, disease, insect outbreaks or other adverse environmental impacts.
- 6.9.4 Native fungi species shall be used for seedling mycorhisation.
- 6.10 Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:
 - a) Entails a very limited portion of the forest management unit; and,
 - b) Does not occur on high conservation value forest areas; and,
 - c) Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.
 - 6.10.1 FME shall not convert forests, or threatened non-forested habitat to plantations or non-forest land uses, except where the conversion is result from legally established procedures over responsibility of the forest manager and meets the conditions of 6.10.2 6.10.4.
 - 6.10.2 If conversion occurs, it shall be very limited in scale and not exceed 5% of the forest management unit over any 5 year period. (See FSC-DIR-20-007-ADV-10)
 - 6.10.3 If conversion occurs, the forest manager shall demonstrate that any conversion produces long term conservation benefits across the FMU.
 - 6.10.4 If the conversion occurs, plantations or non-forest uses shall not replace high conservation value forest.

PRINCIPLE #7: MANAGEMENT PLAN

A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

- 7.1 The management plan and supporting documents shall provide:
 - a) Management objectives.
 - b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.
 - c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.
 - d) Rationale for rate of annual harvest and species selection.
 - e) Provisions for monitoring of forest growth and dynamics.
 - f) Environmental safeguards based on environmental assessments.
 - g) Plans for the identification and protection of rare, threatened and endangered species.
 - h) Maps describing the forest resource base including protected areas, planned management activities and

land ownership.

- i) Description and justification of harvesting techniques and equipment to be used.
- 7.1.1 Large and Medium FME: FME Management plan, or appendices or reference documents, shall include presentation of the following components:
 - 7.1.1.1 Management objectives;
 - 7.1.1.2 Description of the forest resources to be managed, environmental limitations, land use and ownership status, socioeconomic conditions, and a profile of adjacent lands;
 - 7.1.1.3 Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories;
 - 7.1.1.4 Description and justification for use of different harvesting techniques and equipment;
 - 7.1.1.5 Description and justification of forest management prescriptions and their silvicultural and ecological rationale i.e. based on site specific forest data or published analysis of local forest ecology or silviculture;
 - 7.1.1.6 Rate of harvest of forest products (timber or non-timber, as applicable) and species selection including justification;
 - 7.1.1.7 Measures for identifying and protecting rare, threatened and endangered species and/or their habitat;
 - 7.1.1.8 Map(s) describing the forest resource including forest types, watercourses and drains, compartments/blocks, roads, log landings and processing sites, protected areas, unique biological or cultural resources, and other planned management activities;
 - 7.1.1.9 Environmental safeguards based on environmental assessments (see criterion 6.1);
 - 7.1.1.10 Action plan and maps regarding the areas with high fire risk; and,
 - 7.1.1.11 Plans for monitoring of forest growth, regeneration and dynamics.
- 7.1.2 SLIMF FME (note: above indicators do not apply): A written management plan exists that includes at least the following:
 - 7.1.2.1 The objectives of management;
 - 7.1.2.2 A description of the forest resources;
 - 7.1.2.3 How the objectives will be met, harvesting methods and silviculture systems to ensure sustainability;
 - 7.1.2.4 Sustainable harvest limits (which must be consistent with FSC criteria 5.6);
 - 7.1.2.5 Conservation of rare species and any high conservation values;
 - 7.1.2.6 Maps of the forest, showing protected areas, planned management and land ownership.
- 7.1.3 NTFP resources and uses SHOULD be inventoried and their management considered during planning.
- 7.1.4 Maps that are presented shall be accurate and sufficient to guide forest activities (also see Criterion 6.5).
- 7.1.5 Management plans or related annual operating or harvesting plan shall be available to staff and used in the forest.
- 7.2 The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.
 - 7.2.1 Large and Medium FME: Management plan revisions shall occur based on national norms and shall incorporate the results of monitoring or new scientific and technical information regarding changing



silvicultural, environmental, social and economic conditions.

- 7.2.2 SLIMF FME (note: above indicator do not apply): Management plan shall be reviewed according to the national norms and updated, if necessary, incorporating the results of monitoring to plan and implement future management.
- 7.2.3 Management plan revision/adjustment shall occur in timely manner with revision period not more than 10 years.
- 7.3 Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.
 - 7.3.1 Large and Medium FME: A formal training plan for staff and forest workers related to the management plan and its implementation shall be documented (e.g. including sylviculture elements, HCV and biodiversity issues, etc.).
 - 7.3.2 Evidence of formal or informal training of forest workers on proper implementation of the management plan and the related annual operating and harvesting plans shall exist in the FME.
 - 7.3.3 For harvesting and other specific forestry activities, FME shall use workers (staff and contractors) that are sufficiently educated/trained in the tasks they are assigned to and hold relevant skill certificates/licenses/registration documents.
 - 7.3.4 FME shall provide adequate supervision of forest workers to ensure proper implementation of the management plan and the related annual operating and harvesting plans.
- 7.4 While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.
 - 7.4.1 Large and Medium FME: FME shall make publicly available a summary of the management plan including information on elements listed in criterion 7.1, within the accepted norms of commercial confidentiality.
 - 7.4.2 SLIMF FME (note: above indicator do not apply): Upon request, FME shall make available relevant parts of the management plan to stakeholders who are directly affected by the forest management activities of FME (e.g. neighbouring landowners, local inhabitants, social and environmental stakeholders).

PRINCIPLE #8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

- 8.1 The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.
 - 8.1.1 Large and Medium FME: A plan and design, based on consistent and replicable procedures, shall exist and be implemented for periodic monitoring and reporting.
 - 8.1.2 Large and Medium FME: The frequency and intensity of monitoring shall be based on the size and complexity of the operation and the fragility of the resources under management.

- 8.1.3 SLIMF FME (note: above indicators do not apply): FME shall conduct regular and consistent monitoring in connection with harvesting operations and reforestation.
- 8.1.4 FME maintains the monitoring records accessible, up-to-date and preferably in standard forms.
- 8.2 Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:
 - a) Yield of all forest products harvested.
 - b) Growth rates, regeneration and condition of the forest.
 - c) Composition and observed changes in the flora and fauna.
 - d) Environmental and social impacts of harvesting and other operations.
 - e) Costs, productivity, and efficiency of forest management.
 - 8.2.1 Large and Medium FME: The monitoring plan shall be technically sound and identify/describe observed changes in conditions in terms of:
 - 8.2.1.1 Silviculture (growth rates, regeneration and forest condition, typically as part of a suitable continuous forest inventory system);
 - 8.2.1.2 Commercial harvest including NTFPs;
 - 8.2.1.3 Environment (environmental changes affecting flora, fauna, soil and water resources) (outbreak of pest, invasive species, nesting sites for endangered bird species);
 - 8.2.1.4 Socioeconomic aspects (forest management costs, yields of all products, and changes in community and worker relations or conditions, accident rates); and,
 - 8.2.1.5 Identified high conservation value forest attributes.
 - 8.2.2 SLIMF FME (note: above indicator do not apply): FME shall at a minimum monitor and record information on the following:
 - 8.2.2.1 Amount of products harvested;
 - 8.2.2.2 Regular monitoring of any identified high conservation values;
 - 8.2.2.3 Invasive exotic species;
 - 8.2.2.4 Growth and regeneration of managed species:
 - 8.2.2.5 Post-harvest inspection for erosion and estimate of residue on the basal area; and,
 - 8.2.2.6 Inventory update with the periodic management plan revision (10 years).
- 8.3 Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the "chain of custody."
 - 8.3.1 Forest products commercialized from certified forests shall be readily identifiable. Harvesting and transportation documents of the wood originated from certified forests shall specify the following data:
 - 8.3.1.1 the source of the timber;
 - 8.3.1.1 the date of sale;
 - 8.3.1.1 the quantity of certified product sold out;
 - 8.3.1.1 species;
 - 8.3.1.1 size / quality:
 - 8.3.1.1 the location wherefrom the buyer shall take over the control on the chain of custody over the certified timber



- 8.3.2 Volume and source data on harvested forest products (as per 8.3.1) shall be available in the forest, in transport, at intermediate storage yards (e.g. log yards), and processing centres controlled by FME.
- 8.3.3 Invoices, waybills and other applicable documentation related to transport and sale of forest products shall be kept in a head office and/or shall be easily available for inspection.
- 8.3.4 Written procedure shall be in place to ensure that certified status of sold products is clearly indicated on sales invoices, waybills and other applicable documentation related to transport and sale of certified products. Sales and transportation documents for certified products shall include the chain of custody certificate code in the correct format (e.g. NC-FM/COC-XXXXXX).
- 8.3.5 Certified forest products shall be clearly distinguished from non-certified products through marks or labels, separate documented storage, and accompanying invoices up to the point of sale (i.e. up to the "forest gate").
- 8.4 The results of monitoring shall be incorporated into the implementation and revision of the management plan.
 - 8.4.1 Large and Medium FME: FME shall demonstrate that monitoring results are incorporated into revisions of the management plan.

(Note: For SLIMF see criterion 7.2)

- While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.
 - 8.5.1 Large FME: Results of monitoring shall be incorporated (within the accepted norms of commercial confidentiality) into summaries and other documents that are publicly available (See also indicator 7.4.1).
 - 8.5.2 Medium and SLIMF FME (note: above indicator do not apply): Upon request, FME shall make available monitoring results that are relevant parts of the management plan to stakeholders who are directly affected by the forest management activities of FME (See also indicator 7.4.2).

PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

Management activities in high conservation value forests shall maintain or enhance the attributes, which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

- 9.1 Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.
 - 9.1.1 Large and Medium FME: FMEs shall have conducted an assessment to identify HCVs on their territory based on the "National guide for identification, management and monitoring of HCVF in Bulgaria", taking into account:
 - 9.1.1.1 Consultation with conservation databases and maps;
 - 9.1.1.2 Consideration of primary or secondary data collected during forest inventories on the designated forest area by FME staff, consultants or advisors;
 - 9.1.1.3 Interviews with environmental/biological specialists, local communities, and scientific experts, etc.;
 - 9.1.1.4 Documentation of threats to HCVs; and,
 - 9.1.1.5 If threats to HCVs or HCVF exist, identification of actions to address the threats.

- 9.1.2 Large and Medium FME: The assessment for identification of HCVs shall include written HCVF report describing the identified HCVs/HCVF in the territory and recommendations for necessary actions to address HCVs/HCVF protection and/or threat reduction (i.e. management and monitoring measures to be taken).
- 9.1.3 SLIMF FME (note: above indicators do not apply): Consultations shall have occurred with environmental stakeholders, government or scientists to identify HCVs and/or HCVF. If HCVs or HCVF are present in their territory, FME shall take all reasonable steps to protect these values and/or reduce threats.
- 9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.
 - 9.2.1 Large FME: The stakeholder consultation for HCVF recommendations development, and actions taken in response to such consultation, shall be documented.
 - 9.2.2 FME consultations with stakeholders shall clearly outline identified conservation attributes, as well as recommendations for their maintenance or threat reduction.
- 9.3 The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.
 - 9.3.1 If HCVF or HCVs are present, planning documents shall provide site-specific information, which describes the measures taken to protect or restore such values.
 - 9.3.2 Measures to protect HCVF shall be available in public documents or in the FME management plan summary.
- 9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.
 - 9.4.1 Based on recommendations of the "National guide for identification, management and monitoring of HCVF in Bulgaria" a system for continuous monitoring of HCVF shall be incorporated into the FME's planning, monitoring and reporting procedures.
 - 9.4.2 Large and Medium FME: The monitoring results are documented in standard forms and they are used for updating of the measures for maintenance of the related HCVs.

PRINCIPLE # 10: PLANTATIONS

Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

- 10.1 The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.
 - 10.1.1 Objectives of setting plantation or forestation of non-forested (post agricultural) areas shall be explicit in the management plan, with clear statements regarding the relationship between tree planting and the silviculture, socioeconomic and environmental (i.e. forest conservation and restoration) realities in the region.
 - 10.1.2 Management objectives for conservation of natural forest and restoration shall be described in the management plan.



- 10.1.3 Management objectives, specifically those related to natural forest conservation and restoration, shall be demonstrated in forest management activities.
- 10.2 The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.
 - 10.2.1 Natural forest and areas with natural vegetation shall be considered for protection when plantations are designed and established.
 - 10.2.2 Buffer zones with natural vegetation along watercourses and around wetlands shall be established and/or protected. Buffer zones SHOULD be indicated on maps.
 - 10.2.3 FME shall consider need to ensure wildlife habitat and corridors, suitably located across plantation areas, in consultation with acknowledged experts.
 - 10.2.4 Plantations shall be designed so as to maintain or enhance the visual character of the landscape (i.e. design is based on the scale and intensity of natural patterns of disturbance and planting and harvest regimes within the region).
- 10.3 Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.
 - 10.3.1 Plantation management shall maintain and/or enhance landscape diversity by varying block size and configuration, species, genetic diversity, age class and structure.
 - 10.3.2 Emphasis should be placed on planting and/or applied research on forest species native to the region.
 - 10.3.3 The size of monoculture plantations shall correspond to the size of naturally occurring forest stands in the landscape.

(Note: Also see Criteria 6.4 and 6.10.)

- 10.4 The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.
 - 10.4.1 Plantation species shall be selected based on suitability to site conditions (soils, topography and climate) and management objectives.
 - 10.4.2 FME shall promote the indigenous tree species over exotic species in plantation, in forestation of post agriculture land and in ecosystem restoration activities.
 - 10.4.3 Invasive exotic species and those that cross breed with local species shall not be used in stand composition.
 - 10.4.4 No species shall be used in plantations, in forestation of post agriculture land and in ecosystem restoration activities until historical experience have shown that they are ecologically well-adapted to the site.

- 10.4.5 Where exotic species have been selected, the FME shall explicitly justify this choice demonstrating that their performance is greater than that of native species.
- 10.4.6 When exotic species are used the specific measures to prevent spontaneous regeneration outside plantation areas, unusual mortality, disease, insect outbreaks or other adverse environmental impacts shall be documented.
- 10.5 A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.
 - 10.5.1 Large and Medium FME: Consistent with 6.4.1, at least 5% of the plantations areas shall be managed with a goal to restore in time the natural fundamental forest type or with a goal of biodiversity conservation of native species and habitats.
 - 10.5.2 SLIMF FME (note: above indicator do not apply): At least 5% of the plantations areas shall be based on cultivation of for the region native tree species and shall be managed according to the same silvicultural system used for the management of the natural fundamental forest type.

(Note: Also see Criterion 6.4.)

- 10.6 Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long-term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.
 - 10.6.1 Explicit measures shall be taken to maintain or enhance the soil in terms of structure, fertility and biological activity.
 - 10.6.2 Plantation design and management shall not result in soil degradation.
 - 10.6.3 Forest operations shall not degrade water quality or negatively impact local hydrology.
 - 10.6.4 Where negative impacts on soil or water resources is identified, FME shall take steps to reduce or eliminate such impacts.
- 10.7 Measures shall be taken to prevent and minimise outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilisers. Plantation management should make every effort to move away from chemical pesticides and fertilisers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.
 - 10.7.1 Measures shall be taken in the forest to prevent outbreaks of pests, disease, fire and invasive plant introductions.
 - 10.7.2 A plan should exist for forest fire prevention and control.
 - 10.7.3 An integrated pest management plan shall exist that identifies pests, determines acceptable injury or action thresholds, and alternative methods of addressing threats.
 - 10.7.4 FME shall have a policy and strategy to minimise use of chemical pesticides and fertilisers.
- 10.8 Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not



have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.

- 10.8.1 For recently set plantations with a compact surface larger than 500 ha, monitoring shall include evaluation of potential onsite and off-site ecological and social impacts of plantation activities. (Also see criteria 4.4, 6.1).
- 10.8.2 Amount and types of yield, scale of increment and production, health conditions and soil conditions of the plantations shall be observed regularly (Also see criteria 8.1, 8.2)
- 10.8.3 The purchase of lands or land leases for plantation establishment shall not adversely impact the community and/or resource use by local people.

(Note: For exotic or invasive species issues, see Criterion 10.4.)

- 10.9 Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion.
 - 10.9.1 The plantation shall not occupy land converted from natural forest since November 1994, unless clear evidence exists that the current manager/owner was not directly or indirectly responsible.

(Note: See also Criterion 6.10.)

Annex 1: FSC Glossary of terms

Biological diversity: The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems. (See Convention on Biological Diversity, 1992)

Biological control agents: Living organisms used to eliminate or regulate the population of other living organisms.

Biological diversity values: The intrinsic, ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components. (See Convention on Biological Diversity, 1992)

Chain of custody: The channel through which products are distributed from their origin in the forest to their enduse.

Chemicals: The range of fertilisers, insecticides, fungicides, and hormones which are used in forest management.

Criterion (pl. Criteria): A means of judging whether or not a Principle (of forest stewardship) has been fulfilled.

Customary rights: Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.

Ecosystem: A community of all plants and animals and their physical environment, functioning together as an interdependent unit.

Endangered species: Any species which is in danger of extinction throughout all or a significant portion of its range.

Exotic species: An introduced species not native or endemic to the area in question.

Forest integrity: The composition, dynamics, functions and structural attributes of a natural forest.

Forest management/manager: The people responsible for the operational management of the forest resource and of the enterprise, as well as the management system and structure, and the planning and field operations.

Forest management unit (FMU): A clearly defined forest area with mapped boundaries, managed by a single managerial body to a set of explicit objectives which are expressed in a self-contained multi-year management plan.

Forest stewardship: Forest management which, in conformity with the FSC Principles and Criteria for Forest Stewardship, is environmentally responsible, socially beneficial, and economically viable.

Genetically modified organisms: Biological organisms which have been induced by various means to consist of genetic structural changes.

Indicator: A quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a forest management unit complies with the requirements of an FSC Criterion. Indicators and the associated thresholds thereby define the requirements for responsible forest management at the level of the forest management unit and are the primary basis of forest evaluation.



Indigenous lands and territories: The total environment of the lands, air, water, sea, sea-ice, flora and fauna, and other resources which indigenous peoples have traditionally owned or otherwise occupied or used. (Draft Declaration of the Rights of Indigenous Peoples: Part VI)

Indigenous peoples: "The existing descendants of the peoples who inhabited the present territory of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, overcame them and, by conquest, settlement, or other means reduced them to a non-dominant or colonial situation; who today live more in conformity with their particular social, economic and cultural customs and traditions than with the institutions of the country of which they now form a part, under State structure which incorporates mainly the national, social and cultural characteristics of other segments of the population which are predominant." (Working definition adopted by the UN Working Group on Indigenous Peoples).

High Conservation Value Forests: High Conservation Value Forests are those that possess one or more of the following attributes:

- a) Forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
- b) Forest areas that are in or contain rare, threatened or endangered ecosystems
- c) Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)
- d) Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Landscape: A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area.

Local laws: Includes all legal norms given by organisms of government whose jurisdiction is less than the national level, such as departmental, municipal and customary norms.

Long term: The time-scale of the forest owner or manager as manifested by the objectives of the management plan, the rate of harvesting, and the commitment to maintain permanent forest cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given ecosystem to recover its natural structure and composition following harvesting or disturbance, or to produce mature or primary conditions.

Native species: A species that occurs naturally in the region; endemic to the area.

Natural cycles: Nutrient and mineral cycling as a result of interactions between soils, water, plants, and animals in forest environments that affect the ecological productivity of a given site.

Natural Forest: Forest areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present, as defined by FSC approved national and regional standards of forest management.

Non-timber forest products: All forest products except timber, including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products.

Other forest types: Forest areas that do not fit the criteria for plantation or natural forests and which are defined more specifically by FSC-approved national and regional standards of forest stewardship.

Plantation: Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments.

Precautionary approach: Tool for the implementation of the precautionary principle.

Principle: An essential rule or element; in FSC's case, of forest stewardship.

Silviculture: The art of producing and tending a forest by manipulating its establishment, composition and growth to best fulfil the objectives of the owner. This may, or may not, include timber production.

SLIMF (small or low intensity managed forest): A forest management unit which meets specific FSC requirements related to size and/or intensity of timber harvesting, and can therefore be evaluated by certification bodies using streamlined evaluation procedures. The applicable FSC requirements are defined in *FSC-STD-01-003 SLIMF Eligibility Criteria*.

Stakeholder: Individuals and organisations with a legitimate interest in the goods and services provided by an FMU; and those with an interest in the environmental and social effects of an FMU's activities, products and services. They include: those individuals and organisations which exercise statutory environmental control over the FMU; local people; employees; investors and insurers; customers and consumers; environmental interest and consumer groups and the general public [modified from Upton and Bass, 1995].

Succession: Progressive changes in species composition and forest community structure caused by natural processes (nonhuman) over time.

Tenure: Socially defined agreements held by individuals or groups, recognised by legal statutes or customary practice, regarding the "bundle of rights and duties" of ownership, holding, access and/or usage of a particular land unit or the associated resources there within (such as individual trees, plant species, water, minerals, etc.).

Threatened species: Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Use rights: Rights for the use of forest resources that can be defined by local custom, mutual agreements, or prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption or particular harvesting techniques



Annex 2: List of national and local forest and related laws and administrative requirements which apply in Bulgaria

Category	Name of law/regulation		
1. Legal rights to harvest			
1.1 Land tenure and	Farmland Ownership and Use Act;		
management rights	Forest Act		
1.2 Concession licenses	N/A		
1.3 Management and harvesting planning	Forest Act; Ordinance for Forestland Inventory and Forest Planning		
1.4 Harvesting permits	Forest Act; Ordinance for Felling in Forests		
2. Taxes and fees			
2.1 Payment of royalties and harvesting fees	Forest Act; Ordinance on terms and conditions for assignment implementation of activities in forest areas - state and municipal property, and for use of wood and forest products		
2.2 Value added taxes and other sales taxes	Value Added Tax Act		
2.3 Income and profit taxes	Personal Income Tax Act;		
•	Corporate Income Tax Act;		
	Local Taxes and Fees Act		
3. Timber harvesting activities			
3.1 Timber harvesting regulations	Forest Act; Ordinance for Felling in Forests; Ordinance for Control and Protection of Forestland; Ordinance for Forestland Inventory and Forest Planning; Registration and control of agriculture and forestry technics Act;		
	Administrative Violations and Penalties Act		
3.2 Protected sites and species	Protected Areas Act; Biological Diversity Act		
3.3 Environmental requirements	Environmental Protection Act; Protected Areas Act; Biological Diversity Act; Fisheries and Aquaculture Act; Waters Act		
3.4 Health and safety	Law on Health and Safety at Work; Forest Act, Provision on Health and Safety at Work in Forest		
3.5 Legal employment	Labour Code		
4. Third parties' rights			
4.1 Customary rights	Law of Protection of Consumers		
4.2 Free prior and informed consent	Code of Civil Procedure		
4.3 Indigenous peoples rights	N/A		
5. Trade and transport			
NOTE: This section covers requirements for forest management operations as well as processing and trade.			
5.1 Classification of species, quantities, qualities	Forest Act; Ordinance for Control and Protection of Forestland		
5.2 Trade and transport	Forest Act; Ordinance for Control and Protection of Forestland		
5.2 Offshore trading and	Accountancy Act;		
transfer pricing	Corporate Income Tax Act		
5.4 Custom regulations	Customs Act		
5.5 CITES	Biological Diversity Act		

Annex 3: List of the multilateral environmental agreements and ILO Conventions that Bulgaria has ratified

List of Multilateral Environmental Agreements and Conventions that have an impact on forestry operations and practices:

- Biological Diversity Convention (1996)
- Habitats Directive, Bern 1979 (1991)
- Directive (EC) 92/43/EIS (Habitats Directive)
- Directive (EC) 2009/147/ÈS (Birds Directive)
- RAMSAR (1976)
- World Cultural and Natural Heritage Convention (1976)
- Bonn Convention 1998 (1999)
- CITES 1990 (1991)
- ACCOBAMS (1999)
- AEWA (2000)
- EUROBAT (1999)

List of ILO Conventions that have an impact on forestry operations and practices:

- C29* Forced Labour Convention, 1930
- C87* Freedom of association and protection of the right to organize conventions, 1948.
- C97 Migration for employment (revised) convention, 1949.
- C98* Right to organize and collective bargaining convention, 1949.
- C100* Equal remuneration convention, 1951.
- C105* Abolition of forced labour convention, 1957.
- C111* Discrimination (occupation and employment) convention, 1958.
- C131 Minimum Wage fixing convention, 1970.
- C138* Minimum age convention, 1973.
- C141 Rural workers organizations convention, 1975.
- C142 Human Resources Development Convention, 1975
- C143 Migrant Workers (Supplementary Provisions) Convention, 1975
- C155 Occupational Safety and Health Convention, 1981
- C169 Indigenous and Tribal Peoples Convention, 1989
- C182* Worst Forms of Child Labour Convention, 1999
- ILO Code of Practice on Safety and Health in Forestry Work.
- Recommendation 135 Minimum Wage Fixing Recommendation, 1970

All other ILO Conventions that have been ratified in Bulgaria:

- C1 Hours of Work (Industry) Convention, 1919
- C3 Maternity Protection Convention, 1919
- C6 Night Work of Young Persons (Industry) Convention, 1919
- C8 Unemployment Indemnity (Shipwreck) Convention, 1920
- C9 Placing of Seamen Convention, 1920
- C11 Right of Association (Agriculture) Convention, 1921
- C12 Compensations for Accidents (Agriculture), 1921
- C13 White Lead (Painting) Convention, 1921
- C14 Weekly Rest (Industry) Convention, 1921
- C16 Medical Examination of Young Persons (Sea) Convention, 1921



- C32 Closure Dockworkers Against Accidents (Revised), 1932
- C35 Concerning Insurance Age (Industry, etc), 1933
- C36 Concerning Insurance Age (Agriculture), 1933
- C37 On Disability Insurance (Industry, etc), 1933
- C38 On Disability Insurance Contributions (Agriculture), 1933
- C39 On Death Insurance (Industry.), 1933
- C40 On Death Insurance (Agriculture), 1933
- C42 On Benefits For Occupational Diseases (Revised), 1934
- C43 On Glass Enterprises For Flat Glass, 1934
- C44 On Unemployment, 1934
- C45 For Underground Work (Women), 1935
- C49 On Glass Bottle Enterprises, 1935
- C52 On Paid Leave, 1936
- C53 On The Licenses Of Officers, 1936
- C55 Shipowners' Liability Sick And Injured Seamen, 1936
- C56 On Disease Security Of Seafarers, 1936
- C62 On Technical Safety (Construction) 1937
- C68 Food and Catering (Ships' Crews) Convention, 1946
- C69 On The Certificate Of Professional Competence ship's cook, 1946
- C71 On Pensions For Sailors 1946
- C73 Concerning Medical Examinations Of Seafarers, 1946
- C77 On The Medical Examinations Of Adolescents (Industry), 1946
- C78 On The Medical Examinations Of Adolescents (Non-Industrial Activities) 1946
- C79 On Night Work Of Adolescents (Non-Industrial Activities) 1946
- C80 For Revisions Of Final Provisions, 1946
- C81 Labour Inspection Convention, 1947
- C94 On Labour Clauses (Administrative Contracts), 1949
- C95 Protection of Wages Convention, 1949
- C106 Concerning The Week Holiday (Trade And Office Service), 1957
- C108 Seafarers' Identity Documents Convention, 1958
- C108 Of The Council of Europe for the Protection of Individuals with Automatic Processing of Personal Data, 1981
- C113 Concerning Medical Examination Of Fishermen, 1959
- C116 Final Articles Revision Convention, 1961
- C120 On Hygiene in the Trade and Cantor, 1964
- C123 Of Minimum Age For Admission Of Underground Work In Mines, 1969
- C124 Medical Examination Of Young People With A View To Their Release For Underground Work In Mines, 1969
- C127 Maximum Weight Convention, 1967
- C144 Tripartite Consultation (International Labour Standards) Convention, 1976
- C146 Concerning For Annual Paid Leave For Seafarers, 1976
- C147 Merchant Shipping (Minimum Standards) Convention, 1976 (and its Protocol)
- C156 Concerning Equal Opportunities And Equal Treatment Of Workers From Both Sexes Employees With Family Responsibilities
- C163 Seafarers' Welfare Convention, 1987
- C164 Of The International Labour Organization Concerning Health Protection And Medical Care Of Seafarers, 1987
- C166 On Repatriation Of Seafarers
- C173 Concerning The Protection Of Workers 'Claims In The Event Of Insolvency Of Employer, 1992
- C178 On Inspection Of Working Conditions And Life Of Sailors, 1996
- C179 Concerning The Recruitment And Appointment Of Seamen
- C180 Concerning Seafarers' Hours Of And Equipment Of Ships
- C181 On Private Offices (Agencies) Labour, 1997
- C183 On Maternity Protection, 2000

Annex 4: List of officially endangered species in Bulgaria

IUCN Red List species (2007) native to Bulgaria

1. ГРЪБНАЧНИ 1. VERTEBRATES

БОЗАЙНИЦИ MAMMALIA

РАЗРЕД НАСЕКОМОЯДНИ INSECTIVORA

Сем. Таралежи Erinaceidae

Таралеж Erinaceus concolor

Сем. Земеровки Soricidae

Етруска земеровка Suncus etruscus

РАЗРЕД ПРИЛЕПИ CHIROPTERA

Сем. Подковоноси прилепи Rhinolophidae

Средиземноморски подковонос Rhinolophus blasii

Южен подковонос Rhinolophus euryale

Голям подковонос Rhinolophus ferrumequinum

Малък подковонос Rhinolophus hipposideros

Подковонос на Мехели Rhinolophus mehelyi

Сем. Булдогови прилепи Molossidae

Булдогов прилеп Tadarida teniotis

Сем. Гладконоси прилепи Vespertilionidae

Широкоух прилеп Barbastella barbastellus

Северен вечерник Eptesicus nilssoni

Полунощен прилеп Eptesicus serotinus

Савиево прилепче Hypsugo savii

Дългокрил прилеп Miniopterus schreibersi

Алкатоев (бакембардов) нощник Myotis alcathoe

Златист нощник Myotis aurescens

Дългоух нощник Myotis bechsteini

Остроух нощник Myotis blythi

Нощник на Брандт Myotis brandti

Дългопръст нощник Myotis capaccinii

Езерен нощник Myotis dasycneme

Воден нощник Myotis daubentoni



Мустакат нощник Myotis mystacinus

Трицветен нощник Myotis emarginatus

Голям нощник Myotis myotis

Нощник на Натерер Myotis nattereri

Голям вечерник Nyctalus lasiopterus

Малък вечерник Nyctalus leisleri

Ръждив вечерник Nyctalus noctula

Кафяво прилепче Pipistrellus pipistrellus

Малко кафяво прилепче Pipistrellus pygmaeus

Прилеп на Натузий Pipistrellus nathusii

Средиземноморско прилепче Pipistrellus kuhlii

Кафяв дългоух прилеп Plecotus auritus

Сив дългоух прилеп Plecotus austriacus

Двуцветен прилеп Vespertilio murinus

РАЗРЕД ГРИЗАЧИ RODENTIA

Сем. Сънливци Gliridae

Мишевиден сънливец Myomimus roachi

Лешников сънливец Muscardinus avellanarius

Сем. Скачащи мишки Dipodidae

Скачаща (степна) мишка Sicista subtilis

Сем. Хомяци Cricetidae

Добруджански (среден) хомяк Mesocricetus newtoni

Сив (малък) хомяк Cricetulus migratorius

Обикновен (голям) хомяк Cricetus cricetus

РАЗРЕД ХИЩНИЦИ CARNIVORA

Сем. Мечки Ursidae

Кафява мечка Ursus arctos (*)

Сем. Порови Mustelidae

Видра Lutra lutra (*)

Златка Martes martes

Невестулка Mustela nivalis

Степен пор Mustela eversmanni

Пъстър пор Vormela peregusna

Сем. Котки Felidae

Puc Felis lynx (*)

Европейска дива котка Felis silvestris

Сем. Същински тюлени Phocidae

Тюлен монах Monachus monachus (*)

РАЗРЕД ЧИФТОКОПИТНИ ARTIODACTYLA

Сем. Кухороги Bovidae

Дива коза Rupicapra rupicapra (*)

РАЗРЕД КИТОПОДОБНИ СЕТАСЕА

Сем. Морски свине Phocoenidae

Муткур (морска свиня) Рhocoena phocoena

Сем. Делфини Delphinidae

Делфин Delphinus delphis (*)

Афала Tursiops truncatus (*)

ПТИЦИ AVES

РАЗРЕД ГМУРКАЧОПОДОБНИ GAVIIFORMES

Сем. Гмуркачови Gaviidae

Червеногуш гмуркач Gavia stellata

Черногуш гмуркач Gavia arctica

Черноклюн гмуркач Gavia immer

РАЗРЕД ГМУРЕЦОПОДОБНИ PODICIPEDIFORMES

Сем. Гмурецови Podicipedidae

Ушат гмурец Podiceps auritus

Голям гмурец Podiceps cristatus

Червеноврат гмурец Podiceps grisegena

Черноврат гмурец Podiceps nigricollis

Малък гмурец Tachybaptus ruficollis

РАЗРЕД БУРЕВЕСТНИКОПОДОБНИ PROCELLARIIFORMES

Сем. Буревестникови Procellariidae

Жълтоклюн буревестник Calonectris /Procellaria/ diomedea

Обикновен буревестник Puffinus yelkouan

РАЗРЕД ПЕЛИКАНОПОДОБНИ PELECANIFORMES

Сем. Корморани Phalacrocoracidae

Среден корморан Phalacrocorax aristotelis



Сем. Щъркелови

Сърпокрила патица

Малък корморан Phalacrocorax pygmeus (*)

Сем. Пеликани Pelecanidae

Къдроглав пеликан Pelecanus crispus (*)

Розов пеликан Pelecanus onocrotalus

Сем. Рибоядови Sulidae

Бял рибояд Morus bassanus

РАЗРЕД ЩЪРКЕЛОПОДОБНИ CICONIIFORMES

Сем. Чаплови Ardeidae

Гривеста чапла Ardeola ralloides

Ръждива чапла Ardea purpurea

Сива чапла Ardea cinerea

Голям воден бик Botaurus stellaris

Биволска чапла Bubulcus ibis

Голяма бяла чапла Egretta alba

Малка бяла чапла Egretta garzetta

Малък воден бик Ixobrychus minutus

Нощна чапла Nycticorax nycticorax

Бял щъркел Ciconia ciconia

Черен щъркел Ciconia nigra

Сем. Ибисови Threskiornithidae

Бяла лопатарка Platalea leucorodia

Блестящ ибис Plegadis falcinellus

Сем. Фламингови Phoenicopteridae

Розово фламинго Phoenicopterus ruber

РАЗРЕД ГЪСКОПОДОБНИ ANSERIFORMES

Сем. Патицови Anatidae

Сива патицаAnas streperaМалка белочела гъскаAnser erythropusПосевна гъскаAnser fabalis

Сива гъскаAnser anserСнежна гъскаAnser caerulescensБелоока потапницаAythya nyrocaКафявоглава потапницаAythya ferinaПланинска потапницаAythya marila

Червеногуша гъскаBranta ruficollisЗвънаркаBucephala clangulaЛедена потапницаClangula hyemalis

Тундров лебедCygnus bewickiiНям лебедCygnus olorПоен лебедCygnus cygnus

Ciconiidae

Anas falcata

Мраморна патица Кадифена потапница Траурна потапница Малък нирец

Голям нирец Среден нирец

Червеноклюна потапница Тръноопашата потапница

Обикновена гага Ръждив ангъч Бял ангъч

РАЗРЕД СОКОЛОПОДОБНИ

Сем. Орли рибари
Орел рибар
Сем. Ястребови
Късопръст ястреб
Голям ястреб
Малък ястреб
Черен лешояд
Скален орел
Голям креслив орел
Кръстат (царски) орел
Малък креслив орел

Степен орел Обикновен мишелов Северен мишелов Белоопашат мишелов

Орел эмияр Тръстиков блатар Полски блатар Степен блатар Ливаден блатар Пепелява каня Брадат лешояд Белоглав лешояд

Белоопашат морски орел Ястребов орел Малък орел Черна каня

Червена каня Египетски лешояд

Осояд

Сем. Соколови Далматински сокол Ловен сокол Малък сокол

Средиземноморски сокол Белошипа ветрушка Сокол скитник

Орко

Черношипа ветрушка (Керкенез)

Вечерна ветрушка

РАЗРЕД КОКОШОПОДОБНИ

Сем. Фазанови Лещарка

РАЗРЕД ЖЕРАВОПОДОБНИ

Сем. Жеравови
Момин жерав
Сив жерав
Сем. Дърдавцови
Ливаден дърдавец
Зеленоножка
Голяма пъструшка
Средна пъструшка
Малка пъструшка
Воден дърдавец
Сем. Дроплови

РАЗРЕД ДЪЖДОСВИРЦОПОДОБНИ

Marmaronetta angustirostris

Melanitta fusca Melanitta fusca Mergus albellus Mergus merganser Mergus serrator Netta rufina

Oxyura leucocephala Somateria mollissima Tadorna ferruginea (*) Tadorna tadorna FALCONIFORMES Pandionidae Pandion haliaetus (*) Accipitridae Accipiter brevipes Accipiter gentilis Accipiter nisus

Aegypius monachus (*) Aquila chrysaetos Aquila clanga Aquila heliaca Aquila pomarina Aquila rapax Buteo buteo Buteo lagopus Buteo rufinus Circaetus gallicus Circus aeruginosus Circus cyaneus Circus macrourus Circus pygargus Elanus caeruleus Gypaetus barbatus (*) Gyps fulvus (*) Haliaeetus albicilla (*) Hieraaetus fasciatus Hieraaetus pennatus

Milvus milvus Neophron percnopterus Pernis apivorus Falconidae Falco biarmicus (*) Falco cherrug (*) Falco columbarius Falco eleonorae Falco naumanni Falco peregrinus (*) Falco subbuteo Falco tinnunculus Falco vespertinus **GALLIFORMES** Phasianidae Bonasa bonasia **GRUIFORMES** Gruidae

Milvus migrans

Gruidae
Anthropoides virgo
Grus grus
Rallidae
Crex crex (*)
Gallinula chloropus
Porzana porzana
Porzana parva
Porzana pusilla
Rallus aquaticus
Otididae
Otis tarda
Tetrax tetrax

CHARADRIIFORMES

Стрепет



Сем. Туриликови Турилик Сем. Дъждосвирцови Каменообръщач Морски дъждосвирец Речен дъждосвирец Пясъчен дъждосвирец Планински дъждосвирец Шипокрила калугерица Златистопер дъждосвирец Сребристопер дъждосвирец Обикновена калугерица Белоопашата калугерица

Сем. Стридоядови Стридояд Сем. Бекасови Късокрил кюкавец Трипръст брегобегач Тъмногръд брегобегач Голям брегобегач Кривоклюн брегобегач Малък брегобегач Сив брегобегач Голяма бекасина

Плоскоклюн блатобегач Черноопашат крайбрежен бекас Пъстроопашат крайбрежен бекас

Малка бекасина Голям свирец Малък свирец Тънкоклюн свирец Бойник

Голям червеноног водобегач Малък горски водобегач Голям зеленоног водобегач Голям горски водобегач

Малък зеленоног водобегач Малък червеноног водобегач

Жълтокрак брегобегач Сем. Саблеклюнови

Кокилобегач Саблеклюн Сем. Листоногови Тънкоклюн листоног Плоскоклюн листоног Сем. Огърличникови . Кафявокрил огърличник

Чернокрил огърличник Сем Чайкови Белобуза рибарка Белокрила рибарка Черна рибарка Дебелоклюна рибарка Чайка буревестница Малка черногърба чайка Дългоклюна чайка

Голяма черногърба чайка Малка черноглава чайка

Малка чайка Речна чайка Трипръста чайка Белочела рибарка Каспийска рибарка Речна рибарка Гривеста рибарка Полярна рибарка Сем. Морелетникови Голям морелетник Среден морелетник РАЗРЕД ГЪЛЪБОПОДОБНИ

Сем. Пустинаркови

Burhinidae

Burhinus oedicnemus

Charadriidae Arenaria interpres

Charadrius alexandrinus

Charadrius dubius

Charadrius hiaticula

Eudromias morinellus

Haplopterus spinosus

Pluvialis apricaria

Pluvialis squatarola Vanellus vanellus

Vanellus leucurus

Haematopididae

Haematopus ostralegus

Scolopacidae Actitis hypoleucos Calidris alba Calidris alpina

Calidris canutus Calidris ferruginea Calidris minuta

Calidris temminckii Gallinago media Limicola falcinellus

Limosa limosa Limosa Iapponica Lymnocryptes minimus

Numenius arquata Numenius phaeopus Numenius tenuirostris

Philomachus pugnax Tringa erythropus Tringa glareola

Tringa nebularia Tringa ochropus Tringa stagnatilis

Tringa totanus Xenus cinereus Recurvirostridae

Himantopus himantopus Recurvirostra avosetta Phalaropodidae Phalaropus lobatus Phalaropus fulicarius

Glareolidae Glareola pratincola Glareola nordmanni

Lariidae

Chlidonias hybridus Chlidonias leucopterus Chlidonias niger

Geochelidon nilotica Larus canus

Larus fuscus Larus genei Larus marinus Larus melanocephalus

Larus minutus Larus ridibundus Rissa tridactyla Sterna albifrons Sterna caspia Sterna hirundo Sterna sandvicensis Sterna paradisaea Stercorariudae

Stercorarius pomarinus Stercorarius parasiticus COLUMBIFORMES Pteroclididae

Пухопръста пустинарка

Сем. Гълъбови Див скален гълъб Гълъб хралупар

РАЗРЕД КУКУВИЦОПОДОБНИ

Сем. Кукувицови Качулата кукувица Обикновена кукувица РАЗРЕД СОВОПОДОБНИ Сем. Забулени сови Забулена сова Сем. Същински сови Пернатонога кукумявка Горска ушата сова

Блатна сова

Домашна кукумявка Бухал

Врабчова кукумявка

Снежна сова Чухал

Горска улулица Уралска улулица Ястребова сова

РАЗРЕД КОЗОДОЕПОДОБНИ

Сем. Козодоеви Козодой

РАЗРЕД БЪРЗОЛЕТОПОДОБНИ

Сем. Бързолетови Черен бързолет Алпийски бързолет Блед бързолет

РАЗРЕД СИНЯВИЦОПОДОБНИ Сем. Земеродни рибарчета

Земеродно рибарче Сем. Синявицови Синявица

Сем. Пчелоядови Зелен пчелояд Сем. Папунякови

Папуняк

РАЗРЕД КЪЛВАЧОПОДОБНИ

Сем. Кълвачови Черен кълвач Голям пъстър кълвач Сирийски пъстър кълвач Среден пъстър кълвач Белогръб кълвач Малък пъстър кълвач

Въртошийка Трипръст кълвач Сив къпвач Зепен къпвач

РАЗРЕД ВРАБЧОПОДОБНИ

Сем. Чучулигови Полска чучулига Късопръста чучулига Сива чучулига Балканска чучулига Качулата чучулига Горска чучулига Дебелоклюна чучулига Белокрила чучулига Сем. Лястовицови Градска лястовица Селска лястовица Червенокръста лястовица

Скална лястовица Брегова лястовица Сем. Стърчиопашкови Полска бъбрица

Syrrhaptes paradoxus Columbidae Columba livia livia

Columba oenas **CUCULIFORMES** Cuculidae

Clamator glandarius Cuculus canorus STIGIFORMES Tytonidae Tyto alba Strigidae

Aegolius funereus Asio otus Asio flammeus Athene noctua Bubo bubo

Glaucidium passerinum Nyctea scandiaca Otus scops Strix aluco Strix uralensis Surnia ulula

CAPRIMULGIFORMES

Caprimulgidae

Caprimulgus europaeus

APODIFORMES Apodidae Apus apus Apus melba Apus pallidus **CORACIIFORMES** Alcedinidae Alcedo atthis Coraciidae

Coracias garrulus Meropidae Merops persicus Upopidae Upupa epops **PICIFORMES** Picidae

Dryocopus martius Dendrocopos major Dendrocopos syriacus Dendrocopos medius Dendrocopos leucotos Dendrocopos minor Jynx torquilla Picoides tridactylus Picus canus Picus viridis

PASSERIFORMES Alaudidae Alauda arvensis

Calandrella brachydactyla Calandrella rufescens Eremophila alpestris Galerida cristata Lullula arborea

Melanocorypha calandra Melanocorypha leucoptera

Hirundinidae Delichon urbica Hirundo rustica Hirundo daurica Ptyonoprogne rupestris

Riparia riparia Motacillidae Anthus campestris



Горска бъбрица Ливадна бъбрица Тундрова бъбрица Планинска бъбрица Лимонена стърчиопашка Жълта стърчиопашка Планинска стърчиопашка Бяла стърчиопашка Сем. Копринаркови Копринарка Сем. Водни косове

Воден кос Сем. Орехчета Орехче

. Сем. Завирушкови Сивогуша завирушка Пъстрогуша завирушка

Сем. Дроздови Трънковче червеногръдка Северен славей Южен славей Синьогушка

Пъстър скален дрозд Син скален дрозд Пустинно каменарче Скално каменарче Испанско каменарче Ориенталско каменарче Черно каменарче Сиво каменарче

Черногърбо каменарче Домашна червеноопашка Градинска червеноопашка Ръждивогушо ливадарче Черногушо ливадарче

Белогуш дрозд Koc

Черногуш дрозд Хвойнов дрозд Поен дрозд Беловежд дрозд Имелов дрозд Сем. Коприварчеви Индийско шаварче Тръстиково шаварче Градинско шаварче Мустакато шаварче

Водно шаварче Мочурно шаварче Крайбрежно шаварче Блатно шаварче Свилено шаварче Пъстроопашато шаварче

Малък маслинов присмехулник Голям маслинов присмехулник

Градински присмехулник Полски цвъркач

Речен цвъркач Тръстиков цвъркач Планински певец Жълтоглав певец Буков певец Елов певец Брезов певец

Червеногушо коприварче Малко черноглаво коприварче

Орфеево коприварче Ястребогушо коприварче Малко белогушо коприварче Голямо белогушо коприварче Anthus trivialis Anthus pratensis Anthus cervinus Anthus spinoletta Motacilla citreola Motacilla flava Motacilla cinerea Motacilla alba Bombycillidae Bombycilla garrulus Cinclidae Cinclus cinclus

Troglodytidae Troglodytes troglodytes Prunellidae Prunella modularis

Prunella collaris

Turdidae

Cercotrichas galactotes Erithacus rubecula Luscinia Iuscinia Luscinia megarhynchos Luscinia svecica Monticola saxatilis Monticola solitarius Oenanathe deserti Oenanthe finschii Oenanthe hispanica Oenanthe isabellina Oenanthe leucura Oenanthe oenanthe Oenanthe pleschanka Phoenicurus ochruros Phoenicurus phoenicurus

Saxicola rubetra Saxicola torquata Turdus torquatus Turdus merula Turdus ruficollis Turdus pilaris Turdus philomelos Turdus iliacus Turdus viscivorus Sylviidae

Acrocephalus agricola Acrocephalus arundinaceus Acrocephalus dumetorum Acrocephalus melanopogon Acrocephalus paludicola Acrocephalus palustris Acrocephalus schoenobaenus Acrocephalus scirpaceus

Cettia cetti Cisticola juncidis Hippolais pallida Hippolais olivetorum Hippolais icterina Locustella naevia Locustella fluviatilis Locustella luscinioides Phylloscopus bonelli Phylloscopus proregullus Phylloscopus sibilatrix Phylloscopus collybita Phylloscopus trochilus Sylvia cantillans Sylvia melanocephala Sylvia hortensis Sylvia nisoria Sylvia curruca

Sylvia communis

Градинско коприварче

Голямо черноглаво коприварче

Черногушо коприварче Жълтоглаво кралче Червеноглаво кралче Сем. Мухоловкови Сива мухоловка

Червеногуша мухоловка Беловрата мухоловка Полубеловрата мухоловка Жалобна мухоловка Сем. Мустакати синигери

Мустакат синигер

Сем. Дългоопашати синигери

Дългоопашат синигер Сем. Синигерови Лъскавоглав синигер Жалобен синигер Матовоглав синигер Качулат синигер Черен синигер Син синигер Голям синигер Сем. Зидаркови

Горска зидарка Скална зидарка Сем. Скалолазкови

Скалолазка

Сем. Дърволазкови Горска дърволазка Градинска дърволазка Сем. Торбогнезди синигери Торбогнезд синигер

Сем. Авлигови

Авлига

Сем. Сврачкови Червеногърба сврачка Черночела сврачка Сива сврачка Червеноглава сврачка Белочела сврачка Сем. Вранови

Гарван Сокерица

Жълтоклюна гарга Сем. Скорцови Розов скорец Сем. Тъкачови Снежна чинка Испанско врабче Полско врабче Скапно врабче Сем. Чинкови

Обикновено конопарче

Щиглец Зепеника Брезова скатия

Жълтоклюно конопарче

Елшова скатия Червена чинка Черешарка Обикновена чинка Планинска чинка Кръсточовка Червенушка Диво канарче Сем. Овесаркови Лапландска овесарка Белоглава овесарка Жълта овесарка

Sylvia atricapilla Sylvia rueppelli Regulus regulus Regulus ignicapillus Muscicapidae Muscicapa striata

Sylvia borin

Ficedula parva Ficedula albicollis Ficedula semitorquata Ficedula hypoleuca Timaliidae

Panurus biarmicus Aegithalidae Aegithalos caudatus

Paridae Parus palustris Parus lugubris Parus montanus Parus cristatus Parus ater Parus caeruleus Parus major Sittidae Sitta europaea Sitta neumaver Tichodromadidae Tichodroma muraria Certhiidae

Certhia familiaris Certhia brachydactyla Remizidae Remiz pendulinus Oriolidae Oriolus oriolus Laniidae Lanius collurio Lanius minor Lanius excubitor

Lanius nubicus Corvidae Corvus corax Nucifraga caryocatactes

Lanius senator

Pyrrhocorax graculus Sturnidae Sturnus roseus

Ploceidae Montifringilla nivalis Passer hispaniolensis Passer montanus Petronia petronia Fringillidae

Carduelis cannabina Carduelis carduelis Carduelis chloris Carduelis flammea Carduelis flavirostris Carduelis spinus Carpodacus erythrinus

Coccothraustes coccothraustes

Fringilla coelebs Fringilla montifringilla Loxia curvirostra Pyrrhula pyrrhula Serinus serinus Emberizidae Calcarius Iapponicus Emberiza leucocephalos

Emberiza citrinella



Зеленогуша овесарка

Сивоглава овесарка

Градинска овесарка

Белогуша овесарка

Малка овесарка

Тръстикова овесарка

Черноглава овесарка

Сива овесарка

Снежна овесарка

ВЛЕЧУГИ

РАЗРЕД КОСТЕНУРКИ

Сем. Морски костенурки

Зелена морска костенурка

Сем. Сухоземни костенурки

Шипобедрена костенурка

Шипоопашата костенурка

Сем. Блатни костенурки

Обикновена блатна костенурка

Южна блатна костенурка

РАЗРЕД ГУЩЕРИ

Сем. Сцинкови гущери

Късокрак гущер

Сем. Гущери

Ливаден гущер

Ивичест гущер

Зелен гущер

Живороден гущер

Змиеок гущер

Македонски гущер

Стенен гущер

Кримски гущер

Сем. Гекони

Нощен гущер (гекон)

Сем. Слепоци

Слепок

Жълтокоремен гущер

РАЗРЕД ЗМИИ

Сем. Червейници

Змия червейница

Сем. Бой

Змия пясъчница

Сем. Смокове

Тънък стрелец Смок-стрелец (Синурник)

Черноврата стрелушка

Медянка

Леопардов смок

Ивичест смок

Пъстър смок

Смок мишкар

Вдлъбнаточел смок Сива водна змия

Котешка змия

Сем. Отровници Пепелянка

Остромуцунеста усойница

ЗЕМНОВОДНИ

РАЗРЕД ОПАШАТИ

Сем. Саламандрови

Дъждовник

Алпийски тритон

Гребенест тритон Италиански тритон

Добруджански тритон

Голям гребенест тритон

Обикновен (малък) тритон

РАЗРЕД БЕЗОПАШАТИ

Сем. Крастави жаби

Зелена крастава жаба

Кафява крастава жаба

Emberiza cirlus

Emberiza cia

Emberiza hortulana

Emberiza rustica

Emberiza pusilla

Emberiza schoeniclus

Emberiza melanocephala

Miliaria calandra

Plectrophenax nivalis

REPTILIA

CHELONIA (TESTUDINES)

Cheloniidae

Chelonia mydas

Caretta caretta

Testudinidae

Testudo graeca

Testudo hermanni (*)

Emydidae

Emys orbicularis

Mauremys rivulata (Mauremis caspica rivulata) LACERTILIA (SAURIA)

Scincidae

Ablepharus kitaibeli

Lacertidae

Lacerta agilis

Lacerta trilineata

Lacerta viridis

Lacerta vivipara (Zootoca vivipara)

Ophisops elegans Podarcis erhardii

Podarcis muralis

Podarcis taurica

Gekkonidae Cyrtopodion kotschyi (Gymnodactylus kotschyi)

Anguidae

Anguis fragilis

Ophisaurus apodus **OPHIDIA**

Typhlopidae

Typhlops vermicularis

Boidae

Eryx jaculus

Colubridae

Coluber najadum (Platyceps najadum)

Coluber caspius (Coluber jugularis caspius) Coluber rubriceps (Platyceps collaris) (*)

Coronella austriacà

Elaphe situla (Zamenis situla) (*)

Elaphe quatuorlineata

Elaphe sauromates

Elaphe longissima (Zamenis longissimus)

Malpolon monspessulanus

Natrix tessellata

Telescopus fallax Viperidae

Vipera ammodytes

Vipera ursinii **AMPHIBIA**

CAUDATA

Salamandridae Salamandra salamandra

Triturus alpestris

Triturus cristatus

Triturus carnifex (Triturus cristatus carnifex)

Triturus dobrogicus Triturus karelinii (Triturus cristatus karelinii)

Triturus vulgaris

ANURA

Bufonidae

Bufo viridis Bufo bufo

Сем. Кръглоезичести жаби Червенокоремна бумка Жълтокоремна бумка Сем. Жаби дървесници Жаба дървесница Сем. Чесновници Обикновена чесновница Балканска чесновница Сем. Водни жаби Гръцка дългокрака жаба

РИБИ

РАЗРЕД ЕСЕТРОПОДОБНИ

Шип

РАЗРЕД КОСТУРОПОДОБНИ

Сем. Костурови Високотел бибан 2. БЕЗГРЪБНАЧНИ ТИП ЧЛЕНЕСТОНОГИ КЛАС НАСЕКОМИ РАЗРЕД ВОДНИ КОНЧЕТА

Сем. Гомфиди Офиогомфус

Сем. Кордулегастриди

Кордулегастер

Сем. Кобилички, либелулиди

Леукориния

РАЗРЕД ПРАВОКРИЛИ

Сем. Обикновени дългопипални скакалци

Малка сага Сем. Катантопиди Одонтоподизма

Обикновен паракалоптенус РАЗРЕД ТВЪРДОКРИЛИ Сем. Бръмбари бегачи

Карабус Карабус Бръмбар рогач Алпийска розалия

Сем. Листороги, торни бръмбари

Осмодерма Сем. Сечковци Обикновен сечко РАЗРЕД ПЕПЕРУДИ

Аполон червен Черен аполон Зеринция Сем. Белянки Лептидеа

Балканска жълтушка

Жълтушка Сем. Синевки Лицена Полиоматус Гигантска синевка Макулинеа

Сем. Многоцветници Родопска кадифянка

Сатирче Апатура Хидриас Лофигна Бяло-у

Сем. Лазиокампиди Торбогнездница Сем. Педомерки Лигниоптера Сем. Вечерници

Discoglossidae Bombina bombina Bombina variegata Hvlidae Hyla arborea Pelobatidae Pelobates fuscus

Ranidae

Pelobates syriacus balcanicus

Rana graeca **PISCES ACIPENSERIFORMES** Acipenser nudiventris Acipenser sturio **PERCIFORMES** Percidae

Gymnocephalus baloni 2. INVERTEBRATES ARTHRODOPA **INSECTA ODONATA** Gomphidae

Ophiogomphus cecilia Cordulegastridae

Cordulegaster heros

Libellulidae

Leucorrhinia pectoralis ORTHOPTERA Tettigoniidae Saga pedo Catantopidae

Odontopodisma rubripes Paracaloptenus caloptenoides

COLEOPTERA Carabidae

Carabus hungaricus Carabus variolosus Lucanus cervus Rosalia alpina Scarabaeidae Osmoderma eremita Cerambycidae Cerambyx cerdo **LEPIDOPTERA** Papilionidae Parnassius apolo Parnassius mnemosyne Zerynthia polyxena

Pieridae Leptidea morsei Colias balcanica Colias myrmidone Lycaenidae Lycaena dispar Polyommatus eroides Maculinea arion Maculinea nausithous Nymphalidae Érebia rhodopensis Coenonympha oedipus

Apatura metis

Hypodryas maturna (Euphydryas maturna)

Lophinga achine Nymphalis vaualbum Lasiocampidae Eriogaster catax Geometriade Lignyoptera fumidaria

Sphingidae



Прозерпина

Розово нощно пауново око РАЗРЕД ЦИПОКРИЛИ

Сем. Мравки

Червена горска мравка ТИП МЕКОТЕЛИ

КЛАС ОХЛЮВИ

РАЗРЕД ДРЕВНИ ГАСТРОПОДИ

Сем. Неритиди

Ивичест теодоксус

РАЗРЕД ВОДНИ БЕЛОДРОБНИ ОХЛЮВИ

Сем. Планорбиди

Анизус КЛАС МИДИ Сем. Бисерни миди Бисерна мида 3. РАСТЕНИЯ

ОТДЕЛ ПЛАУНООБРАЗНИ

Сем. Шилолистни Езерен шилолист Сем. Плаунови

Алпийски дифазиаструм Сплескан дифазиаструм Блатна ликоподиела ОТДЕЛ ПАПРАТОВИДНИ

Сем. Адиантови Венерин косъм Сем. Изтравничеви Клиновидно изтравниче Люспесто изтравниче Сем. Скритолинейникови Къдрав скритолинейник Сем. Дриоптерисови Алпийска крехка папрат Вилариев дриоптерис Сем. Разковничеви

Четирилистно разковниче Сем. Змийскоезикови Лайкова лунна папрат Сем. Царскопапратови

Царска папрат Сем. Многоножкови

Камбрийска сладка папрат

Сем. Лейкови Плаваща лейка Сем. Синоптеридови Персийски крайспорник Сем. Телиптеридови Блатен телиптерис ОТДЕЛ ГОЛОСЕМЕННИ

Сем. Кипарисови Дървовидна хвойна Казашка хвойна Сем. Ефедрови Катерлива ефедра Обикновена ефедра Сем. Борови

Калабрийски бор Сем. Тисови Обикновен тис

ОТДЕЛ ПОКРИТОСЕМЕННИ

Сем. Страшникови Бодлив страшник Сем. Кленови Визианов клен Сем. Лаваницови Парнасиева калдезия Сем. Кокичеви

Psoserpinus proserpina

Noctuidae

Dioszeghyana schmidtii

Saturniidae

Perisomena caesigema **HYMENOPTERA**

Formicidae Formica rufa **MOLLUSCA GASTROPODA**

ARCHAEOGASTROPODA

Neritidae

Theodoxus transversalis **BASOMMATOPHORA**

Planorbidae Anisus vorticulus **BIVALVIA** Unionoidae Unio crassus **PLANTES**

LICOPODIOPHYTA

Isoetaceae Isoetes lacustris Lycopodiaceae Diphasiastrum alpinum Diphasiastrum complanatum

Lycopodiella inundata (Lepidotis inundata) POLYPODIOPHYTA (PTERIDOPHYTA)

Adiantaceae

Adiantum capillus-veneris

Aspleniaceae

Asplenium cuneifolium Asplenium lepidum Cryptogrammaceae Cryptogramma crispa Dryopteridaceae Cystopteris alpina Dryopteris villarii Marsileaceae Marsilea quadrifolia Ophioglossaceae

Botrychium matricariifolium

Osmundaceae Osmunda regalis Polypodiaceae

Polypodium cambricum (P. australe) Salviniaceae

Salvinia natans Sinopteridaceae Cheilanthes persica Thelypteridaceae Thelypteris palustris PINÓPHYTA Cupressaceae Juniperus excelsa Juniperus sabina Ephedraceae Ephedra campylopoda Ephedra distachya

Pinaceae Pinus brutia Taxaceae Taxus baccata

MAGNOLIOPHYTA (ANGIOSPERMAE)

Acanthaceae Acanthus spinosus Aceraceae

Acer heldreichii ssp. visianii

Alismataceae Caldesia parnasifolia Amarylidaceae

Елвезиево кокиче Снежно кокиче Пясъчна лилия Сем. Сенникоцветни Възлоцветна целина Пълзяща целина

Крайбрежен астродаукус

Буниум

Дълголистна урока Лютиковидна урока Алпийски кахрис Отровна цикута Приморски ветрогон Дланевидолистен ветрогон Източна тимянка

Архангеликов лазерпициум Странджански воден морач Широколистен опопанакс Жлезиствлакнест пащърнак Блатна самодивска трева Руска самодивска трева

Австрийски плеуроспермум

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Алпийски змиярник Обикновен дракункулус Сем Копитникови

Кръглолистна вълча ябълка

. Сем. Сложноцветни Урумов равнец

Прилегналовлакнест равнец

Бледожълт равнец Тракийски равнец

Сребристовлакнесто подрумиче

Йорданово подрумиче Оранжево подрумиче Едрокошничесто подрумиче

Рилско подрумиче
Борисово подрумиче
Влакнесто подрумиче
Иваново подрумиче
Стрибърново подрумиче
Плосколюспесто подрумиче
Храстовиден пелин

Тъмнолюспест пелин Тънкожилест пелин Светлолюспест пелин Родопски магарешки бодил

Тракийски магарешки бодил

Ахтарова метличина

Пясъчна метличина

Тъмнопурпурна метличина

Волска метличина Нежна метличина Имануелова метличина Дребна метличина Янкева метличина Galanthus elwesii
Galanthus nivalis
Pancratium maritimum
Apiaceae (Umbeliferae)
Apium nodiflorum
Apium repens
Astrodaucus littoralis
Bunium ferulaceum
Bupleurum longifolium
Bupleurum ranunculoides

Cachrys alpina
Cicuta virosa
Eryngium maritimum
Eryngium palmatum
Ferula orientalis
Laserpitium archangelica
Oenanthe tenuifolia

Opopanax hironium ssp. bulgaricum

Pastinaca argyrophylla Peucedanum palustre Peucedanum ruthenicum Pleurospermum austriacum Prangos ferulacea

Seseli bulgaricum
Seseli degenii
Sium sisarum
Stefanoffia daucoides
Trinia glauca ssp. carniolica
Turgeniopsis foeniculacea

Apocynaceae

Trachomitum venetum Aquifoliaceae

Ilex aquifolium
Ilex colchica
Araceae
Acorus calamus
Arum alpinum
Dracunculus vulgaris
Aristolochiaceae
Aristolochia rotunda

Asteraceae Achillea kotschyi (Achillea urumoffii)

Achillea leptophylla Achillea ochroleuca Achillea thracica Anthemis argyrophylla Anthemis jordanovii Anthemis gaudium-solis Anthemis macrantha Anthemis orbelica Anthemis regis-borisii Anthemis rumelica Anthemis sancti-johanis Anthemis stribrnyi

Anthemis virescens
Artemisia chamaemelifolia
Artemisia eriantha
Artemisia lerchiana
Artemisia pedemontana

Carduus rhodopaeus (C. adpressus ssp.

rhodopaeus)
Carduus thracicus
Centaurea achtarovii
Centaurea arenaria
Centaurea atropurpurea
Centaurea bovina
Centaurea gracilenta

Centaurea immanuelis-loewii

Centaurea inermis Centaurea jankae



Кернерова метличина

Пиринска метличина

Маршалова метличина

Черна метличина

Парилска метличина

Пихлерова метличина

Лъжливопазвена метличина

Румелийска метличина

Скална метличина

Вагеницова метличина

Урумов кривец

Българска паламида

Панчичева цицербита

Крилатолистна цицербита

Стоянова паламида

Битинска дрипавка

Шахтова дрипавка

Стоянова дрипавка

Леплива дитрихия (лепкав оман)

Вихренска злолетница

Планински жълт смил

Белоградчишка рунянка

Елиптичнолистен оман

Ледебуров миск

Бодлив миск

Татарска салата

Еделвайс

Клинолистен див тютюн

Сибирски див тютюн

Дългободилест онопордум

Морски отантус

Бодлив паленис

Пиринска чобанка

Горчивчева рейхардия

Безцветна саусуреа

Дребноцветен кокеш Субалпийски спореж

Български сърпец

Блатен спореж

Вълнеста козя брада

Стрибърнова козя брада

Пикровиден уроспермум

Сем. Киселтрънови

Епимедиум

Сем. Грапаволистни

Йорданова айважива

Стрибърнова айважива

Синя айважива

Давидово винче

Гмелиново винче Македонско винче

Лъпгостъпбчесто винче

Веленовскиево винче

Сибирска аргузия

Жлезиста белоочица

Гололистна наумка

Кръгла наумка

Червено усойниче Родопско омразниче

Сем. Кръстоцветни

Арабска етионема

Борзеанов игловръх

Пирински игловръх Орбелийски игловръх

Стрибърнов игловръх

Хълмова гъшарка

Пиринска гъшарка

Скална гъшарка

Грациозна аубриета Черноморска ауриния

Пиринско зеле

Centaurea kernerana

Centaurea mannagetae ssp. pirinica

Centaurea marshaliana Centaurea nigrescens

Centaurea parilica

Centaurea pichleri

Centaurea pseudoaxillaris

Centaurea rumelica

Centaurea rupestris Centaurea wagenitziana

Chondrilla urumoffii

Cirsium bulgaricum

Cicerbita pancicii

Cicerbita plumieri

Cirsium stojanovii

Crepis bithynica

Crepis schachtii

Crepis stojanovii

Dittrichia viscosa (Ilnula viscosa)

Erigeron vichrensis

Helichrysum plicatum

Hieracium belogradcense

Inula spiraeifolia

Jurinea ledebourii

Jurinea tzar-ferdinandii

Lactuca tatarica

Leontopodium alpinum

Ligularia glauca Ligularia sibirica

Onopordon bracteatum

Otanthus maritimus

Pallenis spinosa

Petasites kablikianus

Reichardia picroides

Saussurea discolor

Scorzonera parviflora

Senecio subalpinus Serratula bulgarica

Sonchus palustris

Tragopogon floccosus

Tragopogon stribrnyi

Urospermum picroides

Berberidaceae

Epimedium pubigerum

Boraginacerae

Alkanna jordanovii Alkanna stribrnyi

Alkanna tinctoria

Anchusa davidovii

Anchusa gmelinii Anchusa macedonica

Anchusa stylosa

Anchusa velenovskyi

Argusia sibirica

Buglossoides glandulosa

Cynoglossum germanicum

Cynoglossum rotatum

Echium russicum Onosma rhodopaea

Brassicaceae (Cruciferae)

Aethionema arabicum

Alyssum borzaeanum

Alyssum cuneifolium ssp. pirinicum

Alyssum orbelicum Alyssum stribrnyi

Arabis collina Arabis ferdinandi-coburgii

Arabis nova

Aubrieta gracilis ssp. Scardica

Aurinia uechtritziana (Lepidotrichum uechtritzianum)

Brassica nivalis ssp. jordanoffii

Тракийска овчарска торбичка

Дребноцветна горва Пензешова горва Татарско диво зеле Балканска рупа Качулата боянка Четириръбеста боянка Алиботушка боянка Горски вечерник Балкански вечерник Полегнал многосеменник

Скален иберис Ъглолистна малколмия Сръбска малколмия Дребна марезия . .. Ароматна матиола Алпийско притцелаго Дьорфлерова шиверекия Изменчива мъдрица Водна шилолистка Сем. Дренчеви Крайморско дренче Сем. Камбанкови Евксинска камбанка Йорданова камбанка

Вълнеста камбанка Широколистна камбанка Орфанийска камбанка

Трансилванска камбанка . Променливоцветна камбанка

Сръбски едрайант Българско вятърче Румелийски трахелиум Сем. Капаридови Сераделовидно клеоме

Сем. Бъзови Дебърски бъз Сем. Карамфилови Ресничеста песъчарка Критска песъчарка Азиатска песъчарка Пиринска песъчарка Родопска песъчарка Твърдолистна песъчарка Картузиански карамфил Унгарски карамфил

Дреновски карамфил Картъловиден карамфил Бледоцветен карамфил Стрибърнов карамфил Урумов карамфил Текирска мишорка Тройновилужна мишорка Дилянова мишовка Румелийска мишовка Стоянова мишовка Янкева кутявка Алпийска мантийка Тесалска мантийка Странджанско сапунче Алпийско плюскавиче Калиакренско плюскавиче Критско плюскавиче Черноморско плюскавиче Гръцко плюскавиче Лидиево плюскавиче Велчево плюскавиче Сем. Лободови

Влакнеста басия

Capsella thracica Cardamine parviflora Cardamine penzesii Crambe tataria Draba korabensis Erysimum comatum

Erysimum quadrangulum (Syrenia cana auct.)

Erysimum slavjankae Hesperis sylvestris Hesperis theophrasti

Hymenolobus procumbens (Hornungia procumbens)

Iberis saxatilis

Malcolmia orsiniana ssp. angulifolia

Malcolmia serbica Maresia nana

Matthiola odoratissima

Pritzelago alpina ssp. brevicaulis (Hutchinsia alpina) Schivereckia doerfleri

Sisymbrium polymorphum Subularia aquatica Callitrichaceae Callitrichae brutia Campanulaceae Campanula euxina Campanula jordanovii Campanula lanata Campanula latifolia

Campanula orphanidea (Petkovia orphanidea)

Campanula transsilvanica Campanula versicolor Edraianthus serbicus Jasone bulgarica

Trachelium rumelianum (T. jacquinii)

Capparidaceae

Cleome ornithopodioides

Caprifoliaceae Sambucus deborensis Caryophyllaceae Arenaria ciliata Arenaria cretica

Arenaria gypsophylloides Arenaria pirinica Arenaria rhodopaea Arenaria rigida

Dianthus carthusianorum

Dianthus kladovanus (D. pontederae ssp.

kladovanus)

Dianthus drenowskyanus Dianthus nardiformis Dianthus pallidiflorus Dianthus stribrnvi Dianthus urumoffii Gypsophylla tekirae Gypsophylla trichotoma Minuartia diljanae Minuartia rumelica Minuartia stojanovii Moehringia jankae Petrorhagia alpina Petrorhagia thessala Saponaria stranjensis

Silene alpina Silene caliacrae Silene cretica Silene euxina Silene graeca Silene lydia Silene velcevii Chenopodiaceae Bassia hirsuta



Обикновено халимионе Тученичево халимионе

Петросимония

Разнолистна суеда

Сем. Лавданови

Тамянка

Сем. Поветицови

Дребно чадърче

Нежна поветица

Парнаска поветица

Зюндерманова поветица

Копринестовлакнеста поветица

. Теснолистна поветица

Персийска поветица

Критска креса

Сем. Дебелецови

Дебелолист

Розов златовръх Костова тлъстига

Магеланска тлъстига

Стефчова тлъстига

Черноколева тлъстига

Цоликоферова тлъстига Четинест дебелец

Сем. Острицови

Карниолска блатница

Сем. Лугачкови

Византийско червеноглавче

Динарско червеноглавче

Сем. Росянкови

Жлезиста алдрованда Кръглолистна росянка

Сем. Миризливовърбови

Облепиха

Сем. Наводникови

Прешленолистен наводник

Тритичинков наводник

Сем. Емпетрови

Черен емпетрум

Сем. Пиренови

Гола кумарка Жлезиста кумарка

Калуна

Пирен

Миртолистна зеленика

Странджанска зеленика

Кавказка боровинка

Сем. Млечкови Алепска млечка

Пъскавопистна мпечка

Пясъчна млечка

Сем. Бобови

Златна раменка

Айтоски клин

Тракийски клин Алпийско сграбиче

Рогчесто сграбиче

Вълнестоцветно сграбиче

Безстъблово сграбиче

Мехуресточашково сграбиче

Мъхнатоцветно сграбиче Вилмотиево сграбиче

Карагана

Ковачев зановец

Нейчев зановец

Регенсбургски зановец

Цариградски нахут

Немска жълтуга Влакнеста жълтуга Halimione pedunculata

Halimione portulacoides

Petrosimonia brachiata

Sueda heterophylla Cistaceae

Cistus salvifolius

Convolvulaceae

Calystegia soldanella

Convolvulus althaeoides (C. elegantissimum)

Convolvulus boissieri ssp. parnassicus (C.

compactus)

Convolvulus boissieri ssp. suendermannii

(C. suendermannii)

Convolvulus holosericeus

Convolvulus lineatus

Convolvulus persicus

Cressa cretica

Crassulaceae

Crassula tillaea

Rhodiola rosea

Sedum kostovi

Sedum magellense

Sedum stefco

Sedum tschernokolevii

Sedum zollikoferi

Sempervivum ciliosum

Cyperaceae

Eleocharis carniolica

Dipsacaceae

Knautia byzantina

Knautia dinarica Droseraceae

Aldrovanda vesiculosa

Drosera rotundifolia

Elaeagnaceae

Hippophae rhamnoides

Elatinaceae

Elatine alsinastrum Flatine triandra

Empetraceae

Empetrum nigrum

Ericaceae

Arbutus andrachne

Arbutus unedo

Calluna vulgaris

Erica arborea

Rhododendron myrtifolium

Rhododendron ponticum

Vaccinium arctostaphyllos Euphorbiaceae

Euphorbia aleppica

Euphorbia lucida Euphorbia peplis

Fabaceae (Leguminosae)

Anthyllis aurea

Astracantha aitosensis

Astracantha thracica (Astragalus thracicus)

Astragalus alopecurus

Astragalus corniculatus Astragalus dasyanthus

Astragalus exscapus

Astragalus physocalix

Astragalus pubiflorus Astragalus wilmottianus

Caragana frutex

Chamaecytisus kovacevii

Chamaecytisus neicheffii

Chamaecytisus ratisbonensis

Cicer montbretii

Genista germanica Genista pilosa

Гол сладник

Пълзящ гръмотрън

Сем. Букови

Пърнар

Местенски дъб

Тракийски дъб

Троянски дъб

Сем. Франкениеви

Франкения

Сем. Тинтявови

Пронизанолистна блекстония

Крайбрежен червен кантарион

Морски червен кантарион

Безстъблена тинтява Скална тинтява

Жълта тинтява

Петниста тинтява

Истинска горчивка

Къдрава горчивка

Енгадинова горчивка

Петниста сверция

Сем. Здравецови

Балканско часовниче

Осилест здравец

Бохемски здравец

Едростълбчест здравец

Блатен здравец

Сем. Силиврякови

Родопски силивряк

Сръбска рамонда

Сем. Гологлавчеви

Равнинно гологлавче

Сем. Звъникови

Багрилна звъника

Боасиерова звъника

Чашковидна звъника Четинеста звъника

Тасоска звъника

Сем Конскокестенови

Конски кестен

Сем. Хипуридови

Обикновен хипурис

Сем. Водянкови

Алоевиден стратиотес

Сем. Перуникови

Оливиеров минзухар

Томасиниев минзухар

Блатно петльово перо

Безлистна перуника

Луковична пролетка Гръцка пролетка

Сем. Дзукови

Жабешка дзука

Трицветна дзука

Разперена светлика Сем. Дзуковидни

Приморски триостреник

Сем. Устноцветни

Фривалдскиева микромерия

Юлианова микромерия Черноморска коча билка

Украинска коча билка

Форскалева какула Переста какула

Кримска какула

Кримски миризлив бурен

Пясъчен ранилист

Балкански ранилист

Приморски ранилист

Шарпланински ранилист

Glycyrrhiza glabra Ononis repens Fagaceae

Quercus coccifera

Quercus mestensis

Quercus thracica

Quercus trojana

Frankeniaceae

Frankenia pulverulenta

Gentianaceae

Blackstonia perfoliata

Centaurium littorale

Centaurium maritimum

Gentiana acaulis

Gentiana frigida

Gentiana lutea

Gentiana punctata

Gentianella amarella

Gentianella crispata

Gentianella engadinensis

Swertia punctata

Geraniaceae

Erodium absinthoides

Geranium aristatum Geranium bohemicum

Geranium macrostvllum

Geranium palustre

Gesneriaceae Haberlea rhodopensis

Ramonda serbica

Globulariaceae

Globularia trichosantha

Guttiferae

Hypericum androsaemum

Hypericum boissieri

Hypericum calycinum

Hypericum setiferum

Hypericum thasium

Hippocastanaceae Aesculus hippocastanum

Hyppuridaceae

Hippuris vulgaris

Hydrocharitaceae Stratiotes aloides

Iridaceae

Crocus olivieri

Crocus tommasinianus

Gladiolus palustris

Iris aphylla Romulea bulbocodium

Romulea linaresii ssp. graeca

Juncaceae

Juncus ranarius

Juncus triglumis Luzula deflexa

Juncaginaceae

Triglochin maritima

Lamiaceae

Micromeria frivaldszkyana Micromeria juliana

Nepeta parviflora

Nepeta ucranica Salvia forskaohlei

Salvia pinnata

Salvia scabiosifolia Sideritis syriaca (S. taurica)

Stachys arenariaeformis

Stachys balcanica

Stachys maritima Stachys scardica



Едногодишно подъбиче

Странджанско подъбиче

Прицветникова мащерка

Пиринска мащерка Стоянова мащерка

Сем. Лентибулариеви

Южна мехурка

Дребна мехурка

Сем. Кремови

Ръбестостъблен лук

Качулест лук

Планински лук

Стоянов лук

Ресничеста белевалия

Широколистен мразовец

Борисов мразовец

Давидов мразовец

Ямболски мразовец

Родопски мразовец Дряновска ведрица

Гусихиева ведрица

Шахматовидна ведрица

Източна ведрица

Черноморска ведрица

Стрибърнова ведрица

Хризантемов жълт гарвански лук

Хелдрайхиев жълт гарвански лук

Албански крем

Жълт крем

Родопски крем

Късна лойдия

Родопска мерендера

Битински синчец

Български синчец

Златисто лале Южно лале

Пиринско лале

Родопско лале

Блестящо лале

Тракийско лале

Урумово лале

Сем. Ленови Нежен лен

Старопланински лен

Сем. Блатиеви

Прешленолистна амания

Мащеркова блатия

Мидендорфия

Теснолистен пеплис

Сем. Воднодетелинови Трилистна водна детелина

Шитопистни какички

Сем. Моринови

. Персийска морина Сем. Блатни рози

Бърдуче

Водна роза

Сем. Върбовкови

Дребна чаровница

Блатна лудвигия

Сем. Салепови

Обикновен анакамптис Дремников главопрашник

Венерино пантофче

Месночервена дактилориза

Калописиева дактилориза

Гройтеров дремник

Бледоустен дремник

Блатен дремник

Пурпурен дремник Безлистен епипогиум Teucrium botrys

Teucrium lamifolium

Thymus bracteosus

Thymus perinicus

Thymus stojanovi

Lentibulariaceae

Utricularia australis (U. neglecta)

Utricularia minor

Liliaceae

Allium angulosum

Allium jubatum

Allium montanum

Allium stojanovii

Bellevalia ciliata

Colchicum bivonae

Colchicum borisii

Colchicum davidovii

Colchicum diampolis

Colchicum rhodopaeum

Fritillaria drenovskii

Fritillaria gussichiae

Fritillaria meleagroides

Fritillaria orientalis

Fritillaria pontica

Fritillaria stribrnyi

Gagea chrysantha Gagea heldreichii

Lilium albanicum

Lilium iankae

Lilium rhodopaeum

Lloydia serotina

Merendera rhodopaea

Scilla bithynica

Scilla bulgarica

Tulipa aureolina

Tulipa australis Tulipa pirinica

Tulipa rhodopaea

Tulipa splendens

Tulipa thracica (T. hageri)

Tulipa urumoffii

Linaceae

Linum elegans Linum extraaxilare

Lythraceae

Ámmania verticillata

Lythrum thymifolia

Middendorfia borystenica

Peplis alternifolia Menyanthaceae

Menyanthes trifoliata

Nymphoides peltata

Morinaceae

Morina persica

Nymphaeaceae Nuphar lutea

Nymphaea alba

Onagraceae

Circaea alpina Ludwigia palustris

Orchidaceae

Anacamptis pyramidalis Cephalanthera epipactoides

Cypripedium calceolus

Dactylorhiza incarnata

Dactylorhiza kalopissii

Epipactis greuterii Epipactis leptochila

Epipactis palustris

Epipactis purpurata

Пълзяща гудиера Блатиста хамарбия Едногрудков херминиум Обикновена пърчовка Недоразвит лимодорум Льозелов липарис Сърцевиден тайник Обикновена пчелица Гръцка пчелица Двурога пчелица Муховидна пчелица Паяковидна пчелица

двурога пчелица
Муховидна пчелица
Паяковидна пчелица
Редкоцветен салеп
Шлемовиден салеп
Пеперудоцветен салеп
Провански салеп
Шпитцелов салеп
Кълбеста траунстейнера

Кълбеста траунстейнер Палешников серапиас Есенен спиралник Сем. Божурови Розов божур Теснолистен божур Сем. Макови Пирински мак Сем. Живовлекови Рогат живовлек Гигантски живовлек

Сем. Саркофаеви

Бесерова змийска трева Бяла змийска трева Далматинска змийска трева Татарска змийска трева Маноловска гърлица Българска гърлица Гмелинова гърлица Широколистна гърлица Мейерова гърлица

Обикновена гърлица Сем. Житни

Равенски ериантус
Влагалищна власатка
Сем. Телчаркови
Суха телчарка
Алпийска телчарка
Горчива телчарка
Сибирска телчарка
Сем. Лападови
Рилски ревен
Сем. Ръждавецови
Гъстолистна гренландия
Тъполистен ръждавец

Сем. Игликови Тъполистен оклоп Мечо око Пролетно ботурче Блатна перушина Европейско ленивче Рилска иглика

Влакновиден ръждавец

Рилска иглика Старопланинска иглика Дългоцветна иглика Сибторпиева иглика

Унгарско крайснежно звънче Пиринско крайснежно звънче

Сем. Муравови Кръглолистна мурава Сем. Рафлезиеви

Цитинус Сем. Лютикови Goodyera repens Hammarbia paludosa Herminium monorchis

Himantoglossum caprinum (H. hircinum)

Limodorum abortivum Liparis loeseli Listera cordata Ophrys apifera Ophrys argolica

Ophrys cornuta (O. scolopax ssp. cornuta

Ophrys insectifera

Ophrys mammosa (O. sphegodes ssp. mammosa)

Orchis laxiflora Orchis militaris Orchis papilionaceae Orchis provincialis Orchis spitzelii

Traunsteinera globosa (Orchis globosa)

Serapias vomeraceae
Spiranthes spiralis
Paeoniaceae
Paeonia mascula
Paeonia tenuifolia
Papaveraceae
Papaver degenii
Plantaginaceae
Plantago cornuti
Plantago maxima
Plumbaginaceae
Goniolimon besseranum
Goniolimon dalmaticum

Goniolimon dalmaticum Goniolimon tataricum Limonium asterotrichum Limonium bulgaricum Limonium gmelinii Limonium latifolium Limonium meyeri Limonium vulgare Poaceae (Gramineae) Erianthus ravennae Festuca vaginata Polygalaceae Polygala acarnanica Polygala alpestris Polygala amarella Polygala sibirica Polygonaceae Rheum rhaponticum

Rheum rhaponticum
Potamogetonaceae
Groenlandia densa
Potamogeton friesii
Potamogeton trichoides
Primulaceae
Ardrosace obtusifolia
Cortusa matthioli
Cyclamen coum
Hottonia palustris
Lysimachia thyrsiflora
Primula deorum

Primula frondosa Primula halleri

Primula vulgaris ssp.sibthorpii Soldanella chrysostricta Soldanella pirinica Pyrolaceae Pyrola rotundifolia Raflesiaceae Cytinus clusii Ranunculaceae



Волжки горицвет

Нарцисова съсънка

Червена съсънка

Горска съсънка

Златиста кандилка

Обикновена кандилка

Алпийски повет

Белоцветен шпорец

Български ерантис

Източна челебитка

Халерово котенце

Полско котенце

Славянско котенце

Пролетно котенце

Кладенчево лютиче Кълбосеменно лютиче

Стояново пютиче

Вонящо обичниче

Витошко лале

Сем. Зърникови

Алпийска зърника

Сем. Розоцветни Ахтарово шапиче

Звездоцветно шапиче

Бъндерицово шапиче

Юмрукчалско шапиче

Меколистно шапиче Пиринско шапиче

Вебиев див бадем

Дребнолистен глог

Ориенталски глог

Триразделнолистен ериолобус

Българско омайниче

Родопско омайниче

Златноцветно прозорче

Емилипопово прозорче Храстовидно прозорче

Черногорско прозорче

Ничичово прозорче

Мочурно прозорче

Българска круша

Дребноцветна сибалдия

Нарязанолистен тъжник

Звънколистен тъжник

Върболистен тъжник Сем. Брошови

Странджанска лазаркиня

Пиринска лазеркиня

Дребно еньовче

Низбягващо еньовче

Родопско еньовче Брошово еньовче

Сем. Седефчеви

Балкански цялолист

Ленолистен цялолист

Седефче

Сем. Върбови

Петтичинкова върба

Тъполистна върба

Розмаринолистна върба

Ксантийска върба

Сем. Каменоломкови

Черно френско грозде Жълта каменоломка

Оклопова каменоломка

Рохелова каменоломка Азиатска каменоломка

Алпийска каменоломка

Сем. Живеничеви

Гол напръстник

Родопска горска майка

Adonis volgensis

Anemone narcissiflora

Anemone pavonina

Anemone sylvestris

Aquilegia aurea

Aquilegia nigricans (A. vulgaris)

Clematis alpina

Delphinium fissum ssp. Albiflorum

Eranthis bulgaricus

Nigella orientalis

Pulsatilla halleri

Pulsatilla pratensis Pulsatilla slavjankae

Pulsatilla vernalis

Ranunculus fontanus

Ranunculus sphaerospermus

Ranunculus stojanovii

Thalictrum foetidum

Trollius europaeus

Rhamnaceae

Rhamnus alpina

Rosaceae

Alchemilla achtarovii

Alchemilla asteroantha

Alchemilla bandericensis

Alchemilla jumrukczalica

Alchemilla mollis

Alchemilla pirinica

Amvadalus webbii Crataegus microphylla

Crataegus stevenii

Eriolobus trilobata

Geum bulgaricum

Geum rhodopaeum

Potentilla chrysantha Potentilla emili-popii

Potentilla fruticosa

Potentilla montenegrina

Potentilla nicicii

Potentilla palustris

Pyrus bulgarica

Sibbaldia parviflora

Spiraea crenata

Spiraea hypericifolia

Spiraea salicifolia Rubiaceae

Asperula involucrata

Asperula suberosa

Galium demissum

Galium procurrens

Galium rhodopaeum Galium rubioides

Rutaceae

Haplophyllum balcanicum

Haplophyllum thesioides

Ruta graveolens

Salicaceae

Salix pentandra Salix retusa

Salix rosmarinifolia

Salix xanticola

Saxifragaceae

Ribes nigrum Saxifraga aizoides

Saxifraga androsacea

Saxifraga marginata

Saxifraga mollis

Saxifraga retusa

Scrophulariaceae

Digitalis laevigata Lathraea rhodopaea

Къса лугачка Гръцка лугачка Лежаща линдерния Блатно пропадниче

Хоботниче Карпатска тоция Одрински лопен Анасонов лопен

Боев лопен

Винчелистен лопен Давидов лопен

Декоративен лопен Диекианов лопен Пушицов лопен Янкев лопен Йорданов лопен

Юрушки лопен Лагуров лопен Дребноцветен лопен

... Лъжеблагороден лопен

Пурпурен лопен Скален лопен Родопски лопен Тракийски лопен Цар Борисов лопен Урумов лопен

Баумгартеново великденче Черноморско великденче

Сиво великденче Гризебахово великденче

Перестолистно великденче Търилово великденче Сем. Ежоглавичкови Теснолистна ежова главица

Малка ежова главица Сем. Ракитовицови Немска мирикария Сем. Телигонови Телигониум Сем. Тимелееви Благаево бясно дърво

Лаврово бясно дърво Странджанско бясно дърво

Сем. Джулюнови

Дяволски орех Сем. Папурови Шутлевортиев папур Сем. Копривови Родопска разваленка Сем. Дилянкови Келереров кентрантус Цялолистна дилянка Сем. Теменугови Балканска теменуга Дългошпореста теменуга

Стройна теменуга Гризебахова теменуга Рилска теменуга Блатна теменуга Дребна теменуга Пиринска теменуга Прасковолистна теменуга

Ниска теменуга Пиренейска теменуга Прекрасна теменуга Стоянова теменуга

Linaria brachyphylla Linaria peloponesiaca Lindernia procumbens Pedicularis palustris Rhynchocorys elephas

Tozzia alpina ssp. carpathica (T. carpathica)

Verbascum adrianopolitanum Verbascum anisophyllum Verbascum boevae Verbascum bugulifolium Verbascum davidoffii Verbascum decorum Verbascum dieckianum Verbascum eriophorum Verbascum jankaeanum Verbascum iordanovii Verbascum juruk Verbascum lagurus Verbascum minutiflorum Verbascum pseudonobile Verbascum purpureum

Verbascum rupestre Verbascum spathulisepalum Verbascum thracicum Verbascum tzar-borisii Verbascum urumovii Veronica baumgartenii Veronica euxina Veronica glauca Veronica grisebachii Veronica multifida Veronica turrilliana

Sparganiaceae Sparganium angustifolium Sparganium minimum Tamaricaceae Myricaria germanica Theligonaceae

Theligonum cynocrambe Tymeleaceae Daphne blagayana Daphne laureola Daphne pontica Trapaceae Trapa natans Typhaceae

Typha shuttleworthii

Urticaceae Parietaria rhodopaea Valerianeceae

Centranthus kellererii Valeriana simplicifolia

Violaceae Viola balcanica Viola delphinantha Viola gracilis Viola grisebachiana Viola orbelica Viola palustris Viola parvula Viola perinensis Viola persicifolia Viola pumila

Viola pyrenaica Viola speciosa Viola stojanovii



Annex 5: Summary of the Certification Assessment Process₃

The certification assessment process begins with a candidate operation submitting an application to NEPCon. Based on a review of the application, the scope of the area to be certified and discussions with the candidate, NEPCon will propose a certification process that includes either a) a pre-assessment followed by a main assessment, or b) a main assessment only. Every candidate operation is assigned a NEPCon task manager who will liaise with the assessment lead auditor and the candidate to schedule and perform the evaluations.

NEPCon auditors are provided with detailed guidance on the certification process, including pre-assessment briefings (either in person or by telephone) and access to a NEPCon forest assessment handbook. The purpose of these briefings and the manual is to ensure that a consistent and thorough certification process is followed.

In addition to following the NEPCon procedures outlined in our forest evaluation handbook, there are three other ways in which we ensure accuracy and fairness in our certifications:

- 1. The assessment must involve individuals who are familiar with the particular region and type of forest management operation under evaluation. It is NEPCon policy to involve local specialists in all assessments.
- Team members must be familiar with NEPCon certification procedures. Each NEPCon certification assessment
 has a designated lead auditor who must have participated in a formal NEPCon auditor training course or
 previously participated in other NEPCon forest management assessments or audits.
- 3. The assessment must use region-specific standards (i.e. accredited FSC standard or a "regionalised" NEPCon Interim Standard, based on this NEPCon Generic Standard).

<u>Team Selection and Planning</u> - NEPCon selects a qualified lead auditor and other team members to participate in the assessment. The lead auditor's first task is to ensure that all team members understand the scope and intent of the assessment process. Responsibility for evaluation of different sections (i.e. specific criteria and indicators) of the standard are assigned to different team members, depending on their particular training and expertise. All team members can provide input into any principle, but lead responsibility is assigned for data collection, analysis and writing for each criterion and indicator.

<u>Stakeholder notification</u>: At least 45 days prior to forest evaluation, NEPCon notifies stakeholders of the pending assessment and requests stakeholders' observations or comments with regard to the operations conformance with the certification standard.

Fieldwork and Data Collection - Evaluation of conformance with the standard is based upon data collection by the auditors through review of FME management documentation, interviews with staff and stakeholders, and field observations and measurements. The team organises opening meetings with the FME staff to review the assessment scope and procedures and certification standards. Documentation review and interview with FME staff begin immediately. The assessment process then moves quickly to the field phase. Inspections are made to sites chosen by NEPCon auditors based on a comprehensive review of the candidate FME's forest holdings and management activities, discussions with interested/affected parties, and identification of critical issues or challenging sites. Site visits occur in the forest, at processing facilities, and in surrounding communities. Visits emphasise management activities of all types and phases and different biological or physical conditions.

Team members meet independently with stakeholders. All assessments solicit and incorporate input (confidential and/or open) from directly affected and/or knowledgeable stakeholders, including local communities, adjoining

³ For detailed information about procedures, contact our headquarters or regional offices through www.nepcon.net



landowners, local forest industry, environmental organisations, government agencies, and scientific researchers. During these consultations, assessment team members explain the assessment process, solicit opinions, and gather impressions about the field performance of the operation being assessed.

<u>Data Analysis and Decision making</u> - Throughout the assessment the team meets independently to discuss progress in gathering information, and discuss preliminary findings. The assessment team works in a consensus fashion to analyse information and evidence gathered, evaluate conformance and reach agreement on their findings as to the certification of the candidate operation.

The assessment team evaluates performance by the FME at the indicator level of the standard. Any non-conformances are analysed and classified as either minor or major. A non-conformance is considered major if it results in a fundamental failure to achieve the objective of the relevant criterion in the standard. Conversely, a non-conformance is considered minor if the impacts are limited in scale, prompt corrective action has been taken to ensure it will not be repeated and it does not result in a fundamental failure to achieve the objective of the relevant criterion. For each area of non-conformance identified, the assessment team develops a nonconformity report (NCR) which is classified as follows:

- A Major Nonconformity Report (NCR) is issued to document a major non-conformance with an indicator(s)/criterion that the candidate FME <u>must</u> correct <u>before</u> NEPCon certification is granted.
- A Nonconformity Report (NCR) is issued to document a minor non-conformance that candidate FME <u>must</u> correct
 by a specific deadline (i.e. short term usually within one year) during the renewable five-year certification period
 (which is the standard FSC certification contract period).
- An observation is a very minor problem or the early stages of a problem which do not of itself constitute a nonconformance, but which the auditor considers may lead to a future non-conformance if not addressed by the
 client. An observation may be a warning signal on a particular issue that, if not addressed, could turn into a nonconformance in the future.

<u>Report Write-up</u> - following the forest evaluation, the team prepares the certification assessment report. This report follows a standardised format and includes detailed findings of performance and proposes pre-conditions (major non-conformances), NCRs or observations.

Review of Assessment Report by Candidate Operation, Independent Peer Reviewers and NEPCon Decision Review - the candidate operation, at least one peer reviewer, and NEPCon regional staff, review each certification assessment report.

<u>Certification Decision</u> - Once the above steps are completed, the applicable NEPCon regional office coordinates a certification decision process. If a certification decision is to approve certification, a five-year certification contract will be executed which requires annual on-site audits. If an operation is not approved, the certification decision will establish what must be done in order for the operation to achieve certified status in the future.



About NEPCon

NEPCon is an international, non-profit organisation. We work to foster sustainable land use and climate-friendly solutions.

We empower people and organisations to be part of the solution in tackling some of the greatest challenges facing mankind - such as climate change and the loss of our natural heritage. We do this through certification services, capacity building and innovation projects.

NEPCon is an accredited FSC Certification Body providing FSC Forest Management and Chain of Custody certification to thousands of forest operations and timber supply chain companies.

Our tailored, international FSC Expert training courses fulfil FSC's formal requirements for FSC Lead Auditor training. We are actively engaged in the FSC system and in projects that aim to facilitate FSC certification.

NEPCon also provides services within PEFC, Sustainable Biomass Partnership (SBP), LegalSource and Carbon Footprint Management (CFM) certification.

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