

Biotop	Biotope (EN)	Definition
110	Tall non-vegetation, mainly buildings	Land with removed vegetation, i.e. urban gray structure where the surface is hardened by asphaltting, casting or otherwise not permeable to water. The hardened ground must have <10% embedded green structure. The surface must be dominated by hardened ground, i.e. there can be elements of non-hardened ground or any biotope type under the smallest mapping unit in the surface scattered in the hardened surface.
120	Suggested sealed urban grey structure	as above
130	Suggested non-vegetation, unsealed urban grey structure	as above
141	Infrastructure, road area sealed, and bridge over water	All road surfaces and railway areas according to the Swedish Transport Agency's national road database NVDB where surface coverage and a simplified land use have been picked up via automatic classification with the support of the Swedish Transport Agency's and Statistics Sweden's templated surface layers.
142	Infrastructure, road area gravel/unsealed	
150	Infrastructure, railway area, mainly unsealed	
210	Urban green structure of open character	The class is typically dominated by open grassy areas, usually lawns or old fields in an urban environment. In the automatic classification of 210, these areas contain >50% low vegetation and <30% semi-high vegetation, which are the main characteristics (Table 5). Other elements (non-vegetation, semi-tall vegetation and tall vegetation) must therefore together be below 50% and semi-tall vegetation.
211	Urban green structure road verges	Road slopes are a class that has essentially been automatically calculated in areas where there is a clear wide open clearing between roads and other non-vegetation. Road verges between road and wooded land have largely been generalized away because the border between open and wooded land is often unclear and it does not work as well to keep all narrow road verges here as those between road and arable land.
212	Green roof: sedum, turf, grass, herbs, shrubs etc	<p>Green roofs come in many guises with different ecological conditions and importance. They can be grouped in different ways, e.g. intensive, semi-intensive or extensive and are called everything from sedum roofs and brown roofs to biotope roofs, etc.</p> <p>The different types are not always sharply separated from each other in terms of definition, which makes it difficult to classify them (Sjögren 2020). BIOTOP SE makes the assessment that this method is not the right one for distinguishing different green roofs, on the other hand, the approach is to include them in the biotope database as far as possible. So the definition the method states is as follows: A green roof is a roof or part of a roof that has a clear plant bed on its surface. It must be &gt;200 m<sup>2</sup> to be drawn and must be above a building, i.e. &gt;2.2 m height from ground level.</p>
220	Urban green structure of lush (fruit trees, berry shrubs) character	These areas should be characterized by low fruit trees and flowering/bearing bushes. Initial unpublished studies show a good correlation between lush gardens and presence of number of bird species (Stoessel unpublished). In the automatic classification of 202, these areas contain >30% semi-high vegetation, leafy structure (Table 5). Other elements (non-vegetation, low vegetation and high vegetation) must therefore together be below 70% and none of them must exceed 50%
231	Urban green structure of wooded character, according to NMD pine dominated	<p><b>230, 231-238 Urban green structure of tree character.</b></p> <p>These surfaces are characterized by trees and can otherwise be very heterogeneous. This includes both tree-lined residential plots as well as larger parks and groves embedded in the urban environment where the assessment is that they are exposed to extensive urban impact. It is the</p>

		main land use that determines where an urban is tree-like green structure transitions into a forest. Since this is also a gradient, it can feel difficult to make a clear decision. However, it is less important for the use of the biotope database because the tree composition information is recorded in the Tree Cover attribute.
233	Urban green structure of wooded character, according to NMD mixed conifer dominated	as above
234	Urban green structure of wooded character, according to NMD mixed coniferous and deciduous	as above
235	Urban green structure of wooded character, according to NMD deciduous dominated	as above
236	Urban green structure of wooded character, according to NMD hardwood dominated	as above
237	Urban green structure of wooded character, according to NMD deciduous mixed with hardwood	as above
240	Urban green structure of grey character	The class is dominated by non-vegetation of all imaginable forms, buildings, paving, garage driveways, trampolines, etc. In the automatic classification of 204, these areas contain >50 but <90% non-vegetation, which is the main characteristic (Table 5). Other elements (low, semi-high and tall vegetation) must therefore be below 50% and semi-high vegetation with a leafy structure must be below 30%.
250	Urban green structure on SGU bedrock outcrop	<b>205 / 250 Urban green structure of natural plot character at SGU mountain in the day</b>  This is an attempt to distinguish the large areas with frequent leisure settlements on mountains during the day, an environment that is barren and strongly characterized by the outcrop environment and low pines. If we don't separate this out this environment lands in 210 or 220 which is unfortunate. A first attempt to separate these has been made in Step 1 for the entire Stockholm county. It works best in an archipelago environment, worse in urban areas where mountains have often turned into lawns during the day and thus should land in 210.
320	Agricultural land - suggested cultivated grassland on SGU coarse sediment	<b>310-340 Cultivated grassland at different soil moisture</b>  The class consists of all areas that are grazed or have been grazed and are clearly cultivated. If this term mainly includes former arable land, but also other land that looks prepared or fertilized. The surfaces are taken from two sources. The first is the field of the block database with long dikes where the land use can be pasture or no land use. The second source is open land outside the urban structure which, according to land surveying, is the oldest economic map from the 1950s was arable land
330	Agricultural land - suggested cultivated grassland on remaining moisture regime	
411	Open substrate dominated land, bedrock	<b>411 Open boulder field, mountains during the day</b>  The class is clearly dependent on the substrate and is dominated by outcrop/rock during the day. Often the entire gradient between outcrops via dry land to open meadows is included, but in a mosaic that cannot be distinguished. The open land must have <10% tree cover, while the tree covered land must be clearly marked by trees and at the same time bear traces of ongoing or recently ceased grazing in order to be 711. So note that all tree-bearing open ground that is not clearly marked is taken to forest of open ground character (see 811-817). The only 711 that exists is the one that is part of the grazing paddocks and bears clear marks on the ground.

412	Open substrate dominated land, boulders and stones	The class is clearly dependent on the substrate and is dominated by block-stone soil. The open land must have <10% tree cover, while the semi-open land must be clearly marked by trees and at the same time bear traces of ongoing or recently ceased grazing. The only 712 that exists is the one that is included in pastures and bears clear marks on it, which is not so likely because difficulties for animals to be able to move in this environment.
432	Open dry-mesic grassland	Open (432) or Wooded (732) healthy grassland with distinct distribution of areas of torrent character that are too small to plot. Wet elements can also be present, but it is the dry parts that predominate. This type of land is, as a rule, marked by heritage. The open land must have <10% tree cover, while the semi-open land must be clearly marked by trees and at the same time bear traces of ongoing or recently ceased grazing. Note that grassland includes both meadow-dominated (herbs and grass) and heath-dominated land (rice and narrow-leaved grass) according to the series concept (Påhlsson, 1998). In dry environments, vegetation cover is limited and underlying substrate often shines through.
433	Open mesic-moist grassland	Open (433) or Wooded (733) healthy grassland with distinct distribution of wet meadow character areas too small to plot. There can also be drier elements, but it is the moist parts that predominate. This type of land is, as a rule, marked by heritage. The open land must have <10% tree cover, while the semi-open land must be clearly marked by trees and at the same time bear traces of ongoing or recently ceased grazing. Note that grassland includes both meadow-dominated (herbs and grass) and heath-dominated land (rice and narrow-leaved grass) according to the series concept (Påhlsson, 1998).
447	Dense reeds, typically on wetland but not in water	This class includes all terrestrial semi-aquatic land that is dominated by dense overwater vegetation, usually reeds. The surface may, but need not, be characterized by semiaquatic conditions or by seasonal flooding. Help is taken from the land map of the property map, but usually the reed cover needs to be determined through aerial image interpretation. In this class, no active land use, which is why only the open form is present, if the bush cover >50% the surface turns into shrubland, if >10% tree cover and clearly marked by trees, the surface turns into forest.
515	Other deciduous shrubs, incl. Mixture of 513-514, on SGU bedrock (>50% SC)	515,525,535,545 Other deciduous shrubland (incl. mixture of 5X0-5X4)  As a rule, bushland must have at least 50% bush cover. Other deciduous shrubland is dominated >70% by deciduous plants, where the height must mainly be below 5 m. Of these, neither thorny bushes nor willow bushes should dominate. It is always permitted with scattered trees, or wooded land <0.1 ha in a shrubland as long as the main character is that the bushes dominate. These can be junipers or genuine deciduous shrubs as well as small trees (conifers or leaves). The class thus makes no distinction between true shrubland and spontaneous overgrowth with trees <5 m high. Not available, but probably picked up from 510-540, i.e. areas with presumed bushland in all moisture categories.
525	Other deciduous shrubs, incl. Mixture of 533-534, on SGU coarse sediment(>50% SC)	as above
535	Other deciduous shrubs, incl. Mixture of 520-540, on dry - wet land (>50% SC)	as above
545	Other deciduous shrubs, incl. Mixture of 543-544, on SGU/fastighetskarta wetland (>50% SC)	as above
611	Pine dominated forest/tree covered land on SGU bedrock outcrop	611, 621, 631, 641 Pine-dominated forest land/wooded land at different moisture regimes  Tree-covered surfaces that, after vectorization and generalization during Step1- the tree worm of the database, predominantly according to national land cover data, NMD consists of pine forest (target value

		>70%). The only thing that separates them is a rough estimate of the moisture regime and the supposed location on outcrop.
621	Pine dominated forest/tree covered land on SGU coarse sediment	611, 621, 631, 641 Pine-dominated forest land/wooded land at different moisture regimes
631	Pine dominated forest/tree covered land on remaining moisture regime	611, 621, 631, 641 Pine-dominated forest land/wooded land at different moisture regimes
632	Spruce dominated forest/tree covered land on remaining moisture regime	612, 622, 632, 642 Spruce-dominated tree-covered land at different moisture regimes
613	Mixed coniferous forest/tree covered land on SGU bedrock outcrop	613, 623, 633, 643 Conifer mixed wooded soil of soil at different moisture regimes
623	Mixed coniferous forest/tree covered land on SGU coarse sediment	613, 623, 633, 643 Conifer mixed wooded soil of soil at different moisture regimes
633	Mixed coniferous forest/tree covered land on remaining moisture regime	613, 623, 633, 643 Conifer mixed wooded soil of soil at different moisture regimes
643	Mixed coniferous forest/tree covered land on SGU/fastighetskartan wetland	613, 623, 633, 643 Conifer mixed wooded soil of soil at different moisture regimes
614	Mixed coniferous and deciduous forest/tree covered land on SGU bedrock outcrop	614, 624, 634, 644 Mixed-leaved conifer-dominated tree-covered land at different moisture regimes
624	Mixed coniferous and deciduous forest/tree covered land on SGU coarse sediment	614, 624, 634, 644 Mixed-leaved conifer-dominated tree-covered land at different moisture regimes
634	Mixed coniferous and deciduous forest/tree covered land on remaining moisture regime	614, 624, 634, 644 Mixed-leaved conifer-dominated tree-covered land at different moisture regimes
644	Deciduous mixed coniferous forest/tree covered land on SGU/fastighetskartan wetland	614, 624, 634, 644 Mixed-leaved conifer-dominated tree-covered land at different moisture regimes
615	Deciduous dominated forest/tree covered land on SGU bedrock outcrop	615, 625, 635, 645 Trivial leaf-dominated tree-covered land at different moisture regimes
625	Deciduous dominated forest/tree covered land on SGU coarse sediment	615, 625, 635, 645 Trivial leaf-dominated tree-covered land at different moisture regimes
635	Deciduous dominated forest/tree covered land on remaining moisture regime	615, 625, 635, 645 Trivial leaf-dominated tree-covered land at different moisture regimes
645	Deciduous dominated forest/tree covered land on SGU/fastighetskartan wetland	615, 625, 635, 645 Trivial leaf-dominated tree-covered land at different moisture regimes
616	Hardwood dominated forest/tree covered land on SGU bedrock outcrop	616, 626, 636, 646 Deciduous-dominated tree-covered land at different moisture regimes
626	Hardwood dominated forest/tree covered land on SGU coarse sediment	616, 626, 636, 646 Deciduous-dominated tree-covered land at different moisture regimes
636	Hardwood dominated deciduous forest/tree covered land on remaining moisture regime	616, 626, 636, 646 Deciduous-dominated tree-covered land at different moisture regimes
617	Mixed deciduous forest/tree covered land on SGU bedrock outcrop	617, 627, 637, 647 Mixed-leaved dominated (deciduous element) forest/wooded land at different moisture regimes
637	Mixed deciduous forest/tree covered land on remaining moisture regime	617, 627, 637, 647 Mixed-leaved dominated (deciduous element) forest/wooded land at different moisture regimes
647	Mixed deciduous forest/tree covered land on SGU/fastighetskartan wetland	617, 627, 637, 647 Mixed-leaved dominated (deciduous element) forest/wooded land at different moisture regimes
618	Clear-cut/other disturbed tree covered land on SGU bedrock outcrop	618, 628, 638, 648 Hygge/other disturbed potentially tree-covered land at different moisture regimes  This class is an attempt to secure all forest land that falls outside the treed land Step1 mask. It has been produced by combining the original tree mask from the object height of the aerial image with the forest mask of the property map and disturbed forest in the national land cover data, NMD. In this way, we are able to capture clearings, outcrops, wetlands and other proposed forest land not captured by the strictly mechanical

		selection criteria, >10% tree cover and >4.5 m tree height, which were set up in the automatic forest worm classification.
711	Open water without installations	710, 711, 712 Water without aquatic vegetation Water according to the property map's water mask where no aquatic vegetation has been registered in the preparatory work for the Stage 1 database. The spectral analysis of orfototo shows that there is no aquatic vegetation in this class. The exception is areas that are < 0.1 ha that may have been included initially but have been generalized away
722	Water with floating vegetation (hydrophytes)	722 Water with floating leaf vegetation (hydrophytes).
723	Water with mixed water vegetation (helophytes/hydrophytes)	723 Water with mixed aquatic vegetation (overwater/floating leaves)
726	Water with tall vegetation, overhanging or in permanent water	726 Water with high vegetation, overhanging or in permanent water Water according to the property map that is covered by tall vegetation or where trees from the land side lean out over water.