skyBirds

Airborne Perching Birds

by steve40

This mod took six months to develop. If you would like to provide feedback of any kind, please use the commenting, endorsement and rating system. This will be the benchmark for further updates. Thank You.

Team members:
steve40: main developer, scripter
zombygeek: modeling and animation
qasiermo: models, water birds
weijiesen: special FX, modeling and animation

Description

Real flying interactive perching bird NPCs for Skyrim.

Imagine real actor birds that don't just stand around mutely doing nothing much, but ones that can hop about, chirp, sing and actually fly away as you approach them. Birds that can land or perch dynamically wherever they choose: on logs, rocks, shrubs, signposts, fences, walls, farmhouses. Birds that will eat insects when they're hungry, or build nests in trees, where they will retire to safety at night and in bad weather. And of course, they can be hunted for their useful alchemy ingredients. This is skyBirds!

 Click here for Chinese version

 Click here for Russian version

<u>Clean Save Method:</u>

- Load up your savegame and then enter the console (use the tilde [~] key)
- Type "coc qasmoke" to teleport to the developer test cell. Nb. don't open, use or pick up any of the stuff in this cell.
- While in the test cell, create a new savegame.
- Enter the console again and type "qqq" to quit out of the game.
- Run the Skyrim launcher, go into the "Data Files" section and deactivate "skyBirds - Airborne Perching Birds" by unticking the box in front of the mod's name.
- If you had low framerate problems using skyBirds v0.91B, then delete "skyBirds - Airborne Perching Birds.ini" from yout Skyrim DATA folder if it is present.
- Relaunch Skyrim and load your new savegame.
- Enter the console and type "coc Riverwood" to teleport to Riverwood.
- Create a new savegame.
- Quit Skyrim again
- Install the skyBirds v0.92Beta update, overwriting the old files.
- Start the Skyrim Launcher and make sure that skyBirds is enabled in the "Data Files" section.
- Launch Skyrim and load your clean savegame.
- Wait 3 minutes to let the dynamic marker and factions initialize. Save the game, play, enjoy.

<u>AFTER UPGRADING, NEVER RELOAD AN OLDER SAVEGAME THAT WAS SAVED WITH AN OLDER VERSION OF SKYBIRDS.</u>
<u>(This common sense rule applies to all mods in general.)</u>

Change Log (v0.92 Beta)

- Improved performance :)
- Silent wings: by popular demand, the wing-flap sound has been disabled.
- Silent birds: birds will become quiet during bad weather or when the player is in combat.
- Faster birds: the bird flight speed has been increased by 25%. It can now be adjusted using the console.
- Fewer spawns: the maximum number of birds that can spawn in any loaded area has been capped at 60. This can be adjusted using the console.
- Dynamic faction configuration: hostile NPCs will no longer go on a bird killing spree (might not work with custom factions).
- Universal mod support: birds will spawn in any DLC or user-created mod* (*experimental, certain design considerations need to be met).
- Supports Dawnguard: birds will spawn in suitable outdoor settings like the area around vampire hunters' headquarters.
- Dead bird disposal: dead birds will be deleted when the parent cell unloads.
- Improved flight radar (WIP): better building avoidance during full flight - birds will fly above rooftop level.
- Improved Flight dynamics (WIP): A subtle bobbing motion has been added to the flight path.
- Steeper takeoff angle.
- Smaller birds: The size of the birds has been scaled down a little.
- In-game help: a skyBirds help topic has been added to the Skyrim help menu, listing the console commands.
- City spawning: bird spawning in cities can be disabled using the console. Useful for debugging.
- Bugfix: added some checks to stop birds from spawning underwater near shipwrecks.
- Bugfix: fixed an issue with bird corpses being placed facing backwards compared with the living bird.
- Bugfix: added a quest fragment that was accidentally omitted from the previous releases.

Change Log (v0.91 Beta)

- Fixed the missing texture problem on dead Brown-Chested Martins
- Reduced the number of birds spawned by 75%. Default is now between 1-5 birds per spawner.
- Increased the bird flight speed by 40% and takeoff speed by 100%
- The max number of birds spawned at each spawner can be set using the console. Use "set _APB_MaxBirdSpawns to x" (without quotes), where x is a number between 1 and 20. The number of birds spawned at each spawner will be a random number between 1 and x. If you set an invalid value, the number will default to 5.
- Fixed a bug that caused a floating nest to appear near Riverwood, which was caused by an invisible vanilla tree.

Image by Freddg

Features (v0.9 Beta)

- New fully animated bird actor models: Blue Jay, Cardinal, Tree Sparrow, Wren, Crested Lark and Brown-Chested Martin.
- The birds can hop about, perch on many objects, and FLY DYNAMICALLY (no canned animations).
- Each bird has custom actor sounds. They sing, chatter and call out to their flock just like real birds.
- Fully interactive: the birds can be killed, they will fly away from predators and they can build nests in trees.
- The birds will retire to their nests at night or in foul weather.
- The birds will eat insects that get too close to them, leaving the wings and carcass behind for the player to collect.
- The birds can perch dynamically on many objects such as trees, logs, plants, rocks and signposts.
- A dynamic precision marker system allows birds to perch precisely on buildings, roofs, trusses, ropes, fences, walls, etc (WIP, only Riverwood is covered in this release)
- Multiple radars to avoid obstacles during flight (WIP).
- 18 new alchemy ingredients to be collected from dead birds.
- Fully scripted AI and spawn management: about 3100 lines of code.
- Roughly 5000 spawners in-game that can spawn up to 20 birds each - that's potentially 100,000 birds in Skyrim!
- A scripted spawn management system keeps track of all the birds and makes sure that the numbers don't get out of control.
- The mods assets are packed in a compressed bsa archive for ease of installation and safe uninstallation. There are no loose scripts to give you problems.

Universal Mod Support (Experimental Feature)

Are you a moder and want birds to spawn in your custom Worldspace? Add any of the following unmodified vanilla objects to your <u>outdoor</u> areas, at ground level, where you would like birds to spawn. Make sure to load your mod after skyBirds in your Skyrim load order.

ACTIVATORS:
- critterSpawnFirefly24x7
- critterSpawnInsects_Few
- critterSpawnInsects_Many

FLORA:
- BirdsNest
- BirdsNest02
- ChickenNest
- FloraCreepCluster
- FloraCreepClusterRock
- FloraSwampFungalPod01
- TreeReachTreeStump01MoraTapinella
- TreePineForestStump01MoraTapinella
- TreePineForestLog01MoraTapinella
- TreeAspenStump01ScalyPholiota
- TreeAspenLog01ScalyPholiota
- TreePineForestStump02BMoraTapinella
- TreePineForestStump02AMoraTapinella
- TreePineForestHollow01BMoraTapinella

To Do/Wish List

- Tweaks to the bird AI and further improvements to the bird's obstacle avoidance system.
- Fix the "backwards" underwing texture on a couple of birds.
- More perching bird species and new models.
- Possibly make a low-res texture pack for those with low-end systems.
- Animated woodpeckers pecking on trees.
- Dynamic precision perch markers for more towns and villages.
- Active hunting of insects during flight!
- Mod add-on: waterBirds (Swimming ducks).
- Bird seed - feed the birds.
- Domesticated birds - caged birds, etc
- Bird followers? (possibly a separate mod project)

Installation

As this is a beta release, PLEASE BACKUP YOUR SAVEGAME before installing this mod. This is a very complex script-intensive mod. I've taken a lot of care to make the scripts as safe as possible, but just in case, make a backup anyway.

Download and install the mod using NMM, or manually copy the files to Skyrim's DATA folder and activate the mod using the Skyrim launcher. The files that you need to put in your DATA folder are: "skyBirds - Airborne Perching Birds.esp" and "skyBirds - Airborne Perching Birds.bsa".

The rar archive also includes an optional ini file "skyBirds - Airborne Perching Birds.ini", which you can also put in your Skyrim DATA folder. The ini file may improve the performance of the script engine on *some* systems. It might not work for some systems, so if you get poor framerates while using this ini file, please delete it.

Please ensure that your Antivirus scanner is configured not to scan "TESV.exe" or "skse_loader.exe" (if you use SKSE) as I have found that this can help reduce stuttering and improve performance quite a lot during gameplay.

Disabling Papyrus logging may also improve game performance slightly.

Uninstallation

<u>Clean Save Method:</u>
- Load up your savegame and then enter the console (use the tilde [~] key)
- Type "coc qasmoke" to teleport to the developer test cell. Nb. don't open, use or pick up any of the stuff in this cell.
- While in the test cell, create a new savegame.
- Enter the console again and type "qqq" to quit out of the game.
- Run the Skyrim launcher, go into the "Data Files" section and deactivate "skyBirds - Airborne Perching Birds" by unticking the box in front of the mod's name.
- Relaunch Skyrim and load your new savegame.
- Enter the console and type "coc Riverwood" to teleport to Riverwood.
- Create a new savegame. The mod is now cleanly uninstalled.

Note that you will still get quite a lot of messages in your Papyrus logs after this.

<u>Normal Uninstallation Method:</u>
- Run the Skyrim launcher, go in to the "Data Files" section and deactivate "skyBirds - Airborne Perching Birds" by unticking the box in front of the mod's name.

This method will give you a LOT of error messages in your Papyrus logs initially, however, the errors will gradually become fewer after several playing sessions as the latent script stacks gradually expire. I've put a lot of safeguards and error traps in the scripts, so they will stop executing shortly after the mod is uninstalled, but it does generate a lot of log spam in the process. C'est la vie. Once the errors have settled down, your logs will be almost as clean as what they would be if you had done the clean save procedure :)

Technical Limitations/Glitches

This is a beta version. Please report any problems in the comments section.

- Dead birds use a rigid model in "T" pose. There is no ragdol model available at this time.
- Birds may sometimes fly through buildings, mountains, embankments, etc, or clip through the ground. The birds have multifunctional radars, but obstacle avoidance is difficult with certain meshes. I've made some breakthroughs with the radar system and I hope to have mountain avoidance working in the near future.
- In-flight water avoidance is very good, but birds may hop into the water, or sometimes perch on submerged rocks.
- Dynamic perching on objects such as trees, plants, rocks and fences is sometimes innacurate and the birds might perch in mid-air on some objects. This is because many mesh objects in Skyrim report their size to Papyrus innacurately, which makes precise landing difficult without hand-placing markers in-game.

This mod will produce certain errors in the logs when the bird's 3D or parent cell unloads from memory. This is because some script functions

will not work when the object's 3D has unloaded. I've put in error traps to kill the script once the 3D unloads, but sometimes an error or two still manages to get written to the logs. The following type of error is perfectly safe, as long as it does not repeat ad nauseum on the same reference ID:

[08/26/2012 - 05:31:32PM] error: Failed to setup moving reference because it has no parent cell or no 3D
stack:
[(FF000CC4)]._APBTestBirdScript01.SplineTranslateTo() - "<native>" Line ?
[(FF000CC4)]._APBTestBirdScript01.FlyCircleLoop() - "_APBTestBirdScript01.psc" Line 710
[(FF000CC4)]._APBTestBirdScript01.TakeFlight() - "_APBTestBirdScript01.psc" Line ?
[(FF000CC4)]._APBTestBirdScript01.Heartbeat() - "_APBTestBirdScript01.psc" Line ?
[(FF000CC4)]._APBTestBirdScript01.InitBird() - "_APBTestBirdScript01.psc" Line 210
[(FF000CC4)]._APBTestBirdScript01.OnUpdate() - "_APBTestBirdScript01.psc" Line 182

The key part here is "because it has no parent cell or no 3D". This is actually one error, but it creates 8 lines of crap in the log. Don't worry about it.

Compatibility

The skyBirds mod is very stable. No external cells have been edited at all in making this mod.

- skyBirds should be fully compatible with most mods.
- If you use ASIS you will get CTDs unless you add "skyBirds - Airborne Perching Birds.esp" to the Mod exclusion section of the ASIS ini file and then re-run the ASIS patcher.
- skyBirds LOVE trees. Any mod that adds more trees to Skyrim should work very well with skyBirds.
- This mod should be generally compatible with Skyrim Bigger Trees, but there might be some minor issues with the positioning of the dynamic birds nests.
- skyBirds is fully compatible with the regular version of 101Bugs, but skyBirds should be loaded after any mod that modifies insect spawners. This includes the "extra spawns" version of 101Bugs.
- skyBirds is fully compatible with "Birds of Skyrim" and "Birds and Flocks".

The following mods are recommended for extra immersion with skyBirds:

- Lush Trees
- Whiterun Trees (by rabbitlol)
- Lush Aspen Trees
- Trees for Solitude
- Markarth Plus Trees and Ruins
- Birds of Skyrim
- Birds and Flocks

Credits

I'd like to thank zombygeek, qasiermo and weijiesen who are busy working on new models and features for future updates.

Other Mods by steve40

JAWS: Deadly Oceans

AIMP - Antz in my Pantz

EZ2C Dialogue Menu